MODERN METHODS IN THE OFFICE

H. J. BARRETT

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MODERN METHODS IN THE OFFICE

MODERN METHODS IN THE OFFICE

HOW TO CUT CORNERS AND SAVE MONEY

BY

H. J. BARRETT

AUTHOR OF
"DOLLARS AND SENSE"

2553

HARPER & BROTHERS PUBLISHERS
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MODERN METHODS IN THE OFFICE

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FOREWORD

MANY of the articles in this volume were previously published in the New York *Evening World* and other newspapers, under the title, "Dollars and Sense." It is in response to the requests of readers that they are republished in book form, together with several which now appear in print for the first time.

From messenger to manager, the writer has sought to touch upon the needs of every one in the office. Stenographers and typists will find more than a score of articles devoted to their interests.

Needless to say, the volume makes no pretense at being a comprehensive treatise upon office work or management. But the pointers offered are culled from every-day experience and possess the merit of being thoroughly practical.

MODERN METHODS IN THE OFFICE

MODERN METHODS IN THE OFFICE

I

TYPING AND CORRESPONDENCE

Typing Signatures Prevents Trouble

"Fifty years ago a good handwriting was a valuable asset for a young man," said a local office manager. "Every 'Help Wanted' ad. demanded legible handwriting as a requisite for clerical jobs. The result was that our forebears developed a beautiful, clear chirography. They had to. An illegible handwriting was a distinct handicap in business life. It meant danger of serious errors in transactions conducted through the mail.

"Chirography, however, is now well-nigh a lost art. The present generation sees no necessity for developing a clear handwriting, because of the omnipresent typewriter. The result of this attitude is that millions of business men actually cannot sign their names so that one can read them.

"We have had considerable trouble right here be-

cause of this fact. Many of our executives are lamentably weak in chirography. For a long time, letters in answer to our correspondence arrived addressed to names which were never represented on our pay-roll. The recipient had been forced to make a wild guess at the writer's signature.

"A very simple idea has obviated the trouble. Now every letter which leaves here contains the full name of the dictator, typed in the lower left-hand corner, with the stenographer's initials beneath it; this in addition to the signature. I expect to see this idea universally adopted in business correspondence."

Renewing Typewriter Ribbons

"In a large office," said an office manager, "the cost of typewriter ribbons is a significant item.

"It occurred to me one day that there must be considerable life left in the old ribbons which are discarded as worn out.

"I tried the experiment of inclosing them in a receptacle with a wet sponge. The dried ink thus became dampened. Upon reinserting the ribbons in the machines, it developed that they had taken a new lease of life. This plan serves to materially lengthen the life of ribbons and substantially reduces this expense factor."

Measuring Typed Matter

"Our typists are paid by the square inch," said an office manager who is in charge of several score operators.

"This necessitates the measuring of all work turned out. Formerly I used an ordinary rule for this purpose, but have recently adopted a very simple device which I saw in use elsewhere. It consists of a transparent celluloid sheet which is divided into half-inch squares by the use of indelible-ink lines. Each square contains a number representing the total area to that point measured from the top and left margin.

"Thus, by merely laying the sheet over the typewritten matter, taking care that it just registers correctly with the top and left margin of the latter, the total area is indicated by the figure appearing in the square which covers the lower right-hand corner. Simple, isn't it?

"Then, by allowing five square inches for addressing the envelope, inserting the date, name, address, salutary and final line, the total area in inches to be credited to the employee is easily determined.

"A still better plan, however, and one which I intend to install, is to equip each machine with a cyclometer which registers the number of strokes. This insures absolute accuracy and saves labor in measuring each piece."

Increasing the Life of Carbon Paper

"What in the world are you doing that for?" inquired the new stenographer, as the girl at the next desk stood by the steam-pipe and slowly rubbed the

uncoated side of a carbon sheet over the warm surface.

"This carbon is nearly worn out," was the reply. "It has begun to render very dim impressions. Application of heat to the back moistens the carbon on the front; it gradually distributes itself over the surface and, after it dries, it gives a sharp impression again. This method increases the life of a sheet of carbon paper about twenty-five per cent."

How to Improve a Business Letter

The correspondents of a large Western concern are provided with the following printed sheet of instructions. These instructions are sufficiently general in character to apply to all business houses.

Instructions to Our Correspondents

1. Don't use a long or big word where a short one will do as well or better. For example: "begin" is better than "commence," "home" or "house" better than "residence," "buy" better than "purchase," "live" better than "reside," "at once" better than "immediately," "give" better than "donate," "start" or "begin" better than "inaugurate."

2. Carefully avoid such words and stock phrases as "beg to acknowledge," "beg to inquire," "beg to advise," etc. Don't "beg" at all.

3. Don't "reply" to a letter; "answer" it. You answer a letter and reply to an argument.

4. Don't say "inclosed herewith." "Herewith" is superfluous.

5. Don't say "kindly" for "please." Avoid "the same" as you would a plague.

6. Don't write "would say." Go right ahead and say it.

7. Be wary of adjectives, particularly superlatives. "Very," "great," "tremendous," "excellent," etc., have marred many an otherwise strong phrase and have propped needlessly many a good word all-sufficient of itself.

8. Don't try to be funny.

9. Carefully avoid even the appearance of sarcasm.

10. Never use the first personal pronoun "I" when writing as this company. "We" is the proper pronoun. Where a personal reference is necessary, "the writer" may be used; but even this should be avoided wherever possible.

11. There are some common grammatical errors so inexcusable that no letter bearing the signature of this company ever should show them. "We was" should be cause for dismissal.

12. Don't forget that certain small words are in the language for a purpose. "And," "a," "the" are important, and their elimination often makes a letter bald, curt, and distinctly inelegant.

Office Time-savers

"Here are a couple of time- and money-saving devices which we have recently applied," said the manager of a concern which, in addition to its regular sales, does a large mail-order business.

"In making carbon copies of an outgoing correspondence—which, by the way, we have concluded is much cheaper and more effective than using even the most modern type of letter-press—we were accustomed to use one sheet of paper for each page copied. Now, in case of a two-page letter, we use both sides of the copying-

page, thus cutting our stationery bill for this item in half.

"Also we use a different-color paper for the carbon copies of the correspondence of different departments. This results in a great saving of time in looking up correspondence."

How Daisy Bennett Obtained a Merited Promotion

"So Grace Stephens is going to get married," reflected Daisy, thoughtfully, on the morning that Miss Stephens, the head stenographer, arrived, proudly displaying a gleaming solitaire. "That means that one of us girls will be promoted to her position. I wonder which of us it will be. It means an increase of five dollars a week—five dollars which I could use very satisfactorily. I believe I'll make a play for it myself," and Daisy sailed into her notes with renewed vigor, postponing a consideration of ways and means for a leisure moment.

"The more I'm worth to the concern the more they're going to pay me," mused Daisy at lunch that day. "I'll wager I can find a lot of waste and inefficiency around that office if I really try. With our staff of twenty girls, a little saving here and there will amount to a lot in the monthly balance sheet." And Daisy returned to the office, determined upon unearthing some money-saving opportunities.

"What do we spend for typewriter ribbons in a

month?" inquired Daisy of the cashier a day or two later.

"About thirty-five dollars," was the reply.

Daisy did a little investigating during her lunch hour the following day.

In the afternoon, while taking dictation from the general manager, she remarked:

"Mr. White tells me that we girls spend thirty-five dollars a month for typewriter ribbons. I have a plan for reducing that expense a half."

"What is it?" inquired Hammond, pleased and surprised at this evidence of initiative on the part of a subordinate.

"I understand that the office is to be equipped with new machines," said the girl.

"Yes, we're considering the question right now," agreed Hammond.

"If you'll buy machines with two-color attachments and insert a one-color ribbon, we can set the machine for black, using the top half of the ribbon; then, when that's worn out, set it for red and run the ribbon through again. Our present models have no two-color attachment; the type strikes in the center and the ribbons last only about two weeks."

"A mighty good idea," exclaimed the superior, studying his stenographer with renewed interest, "and one that had never occurred to me. There's a saving of two hundred and ten dollars a year just from the exertion of a little common sense."

When the new machines were installed, a week later, they included two-color attachments.

Some days later Daisy remarked:

"By the way, Mr. Hammond, I think that we're wasting money on carbon paper. We obtain it in full-sized sheets, although much of it is used on half-sheets and telegram blanks. After it is used a few times a sheet is discarded, even though a large proportion of its surface is fresh. Can't we obtain it in half-sheets and full sheets? Then we'll be sure that none of it is wasted; that every sheet is thoroughly used before being thrown in the waste-basket."

"A very good suggestion," replied the boss. "I'll speak to White about it." And thereafter the carbon paper was bought according to Daisy's plan.

The girl felt encouraged by this ready response to her suggestions, and became more interested in finding methods of saving time and money.

Every few days she propounded a new one.

Once it was the substitution of printed reply blanks to be filled in for acknowledgment of orders, instead of writing a separate letter in each case. This saved the labor of two girls. They were transferred to another department.

Again it was the substitution of fountain pens in the accounting department. This meant elimination of "lost motion" in the constant dipping of pens.

In another case it was the utilization of both sides

of the second sheet in making carbons, saving half the cost of writing-paper.

And so it went. In a few weeks' time her ideas had effected an annual saving amounting to her salary.

Upon Miss Stephens's resignation, two months later, she was elevated to the position of head stenographer, and her envelope contained just double her previous wage.

Office Economies Which Are Worth While

To buy typewriter ribbons in quantity means a substantial discount. But, on the other hand, many an office manager has discovered that, unless carefully preserved, they rapidly deteriorate through becoming dry.

Here is a method of insuring the preservation of ribbons for an indefinite period. Place them in a tin box provided with a lock and key; line the bottom of the box with a pad of cotton batting incased in a covering of cheese-cloth. Soak the pad with glycerin, then, after placing the ribbons in the box, lock it up. This will keep the ribbons fresh and moist.

As the pad becomes dry, treat it from time to time with applications of glycerin.

In offices where a large force is employed, pencils run into money. The use of metal pencil-holders will save money on this item. Instead of supplying the staff with pencils in their original form, cut them in two and have them insert a half-pencil into their

holders. Then every inch of pencil will be used before the pencil is thrown away.

One office manager was puzzled to account for the enormous consumption of penholders. Investigation disclosed the fact that the metal barrel of the model he had been purchasing soon became so rusty that the pen could not be easily removed. The penholders were broken in the tussle that ensued to remove the pen.

He purchased a more expensive holder, one with a cork grip and an automatic ejector. This proved to be a money-saver. The demand for penholders decreased 80 per cent., far more than offsetting the increased investment in the improved model.

For the Stenographer Who Seeks Efficiency

"When I have to make erasures on the original sheet and carbons are beneath it, I avoid smudging the carbons by placing a rule under the original along the platen," says one typist.

"If, as often happens, certain data are required upon carbons which it is desirable to eliminate from the original, I avoid two operations by a simple method," she added. "By placing an extra small sheet over the face of the original and then typing the necessary data upon this slip, the carbons register and that portion of the original remains blank."

"As it happens," said another stenographer, "my

educational opportunities have been superior to those of the other girls in our office. My suggestion that I proof-read all outgoing correspondence for the purpose of correcting errors in spelling and punctuation delighted my employer. He has developed the idea even further by installing a bulletin-board upon which repeated errors are posted, with the name of the girl making them appended. This plan has resulted in greatly increased accuracy among our office force and is gradually raising the standard of education."

"When making carbon copies," said another typist, "I found that often the carbon sheet would become wound about the roller of the machine, thus becoming torn. By binding the sheets of paper together with a clip after their insertion in the machine, I now avoid this difficulty."

"Often our mail directed to points abroad would get away bearing only domestic postage," said one typist. "To avoid this I adopted the practice of writing the word 'Foreign' in the upper right-hand corner of the envelope at the time of typing it. This solved the difficulty, and at the same time saved the mailing department much time and worry.

"When making four or five carbon copies of a letter or document," she added, "I tear off the top right-hand corner of each carbon. Then, after extracting the sheets from the machine, by holding the top right corner between the thumb and forefinger and giving the sheets a slight shake, the carbons promptly drop

out, thus saving the trouble of handling each sheet individually."

"My employer was much pleased," said another typist, "at an idea I suggested some time ago. It was merely to type in caps the words 'not over —— dollars' on the line intended for the signature on his checks. This device affords complete protection against raising the amount, as to tamper with my typed words would mean defacing the signature, which would render the check void."

Tips for Typists

"Here are a few pointers which I've picked up in the course of the day's work," said a competent typist. "Possibly they'll be of value to my fellow-craftsmen.

"I have found that pins are safer to use in fastening papers together than patent clips. Clips have an unfortunate faculty of annexing everything in their vicinity. Several valuable papers have been mislaid in our office in this way. In using pins, I take pains to see that the point is passed back through the top paper, thus avoiding danger of its sticking any one using our files.

"I have discovered that in making a neat job of erasures there is a right way and a wrong way. I use a pencil-eraser first to remove the top surface of the paper; then I use the typewriter eraser, blowing the dust off at frequent intervals.

"When I have a line in a letter which is to be under-

scored clear across the page, instead of striking the underscore key fifty or sixty times, I shift the carriage and lock it. Next I press the underscore key down until it touches the paper. Then with my left thumb I press the type bar against the ribbon and with the other hand release the carriage. It runs quickly across the page, leaving a clean black line. Not only does this method save time, but it results in a neater job.

"Occasionally I find it necessary to use a copy ribbon. To avoid the necessity of removing the regular ribbon at such times, I attach a two- or three-foot length of copy ribbon to each regular ribbon when the latter is inserted in the machine. Then when the copy ribbon is required it is a simple matter to turn the ribbon reverse until the copy ribbon appears.

"Often I am given reports to write on sheets which are wider than my typewriter carriage. In a case like this I fold the paper vertically. Then I insert it in the machine and type across to the fold. I then skip enough of the text to just fill out the folded portion and start on the next line. After the sheet is covered, I remove it and reinsert it with the previously concealed portion visible. It is a simple matter to fill out the lines with the portion of the text originally omitted.

"To conclude: Weekly I thoroughly clean my machine, oil it, adjust the tension, polish all the nickeled portions, and apply a cleaning polish to all the black-enameled surfaces. To-day my machine, which has been in constant use for two years, looks as though

it had just come from the factory. That this policy pleases my employer goes without saying."

Letters—Their Physical Appearance

For years advertising-men have wrangled over the question as to which was the most important feature of a newspaper advertisement—the copy or the display. As a matter of fact, each is so important that they can hardly be considered apart. No matter how convincing the copy may be, a poorly displayed "ad." will not pull results, because it will not be read. On the other hand, if the copy is weak, the "ad." will fail, no matter how striking the display. In advertising, then, display and copy are equally potent factors.

The physical appearance or display of a letter is a vital element in its pulling power. Although not quite so important as in newspaper advertising, it is a feature which should receive careful attention. And yet how seldom does one receive a business letter which is beyond criticism in this respect.

Generally the margins are inadequate, the letter is not properly centered on the page, the right-hand margin is ragged in the extreme. Two and a quarter inches is none too much for marginal display. Few typists allow more than an inch and a quarter. If a letter is short, it should not be bunched at the top of the page, but carefully centered—equidistant from the top and bottom. As for spacing, the tendency to-day is toward single spacing between lines, with a double

space between paragraphs and no indentation for the latter. We are reproducing a form which is becoming increasingly popular among progressive business houses:

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Punctuation is another weak spot with the average typist. The best usage to-day prescribes as little as possible. Here Timothy Dexter proved himself to be a century ahead of his time. He wrote a book, you may remember, which had not a sign of punctuation.

The last page, however, contained a miscellaneous assortment of commas, colons, hyphens, etc., with the request that the reader insert them where he pleased.

Quotation marks are used in hundreds of cases where they're not needed. In referring to a magazine, for example, as The International Review, the average typist inserts quotation marks. Capitals are sufficient.

I am inclined to hold the employers responsible for the poor appearance of the average letter. Ten minutes' instruction should be enough to post a typist on the proper procedure. In order to insure uniformity, up-to-date firms issue printed instructions to their typists. Those given below are copied from one firm's book of instructions.

City and date must be written about three spaces below the lowest printed matter on letter-head, as follows: Boston, date single space below, regulated so that it will precede and extend beyond "Boston" an equal distance, the end of the date being in line with margin of body of letter; spell the month in full, followed by the date in figures, after which use comma; add year in figures and end with period.

Paragraphs must begin ten points from margin on a line with city. Use single space, with double space between paragraphs.

In closing use the phrase "Yours very truly" and sign "The Jones Company." Have correspondent's and stenographer's initials on line with margin on left-hand side of sheet. Margins must be regulated by length of letter to be written, using your judgment in this respect.

The half-size letter-head should be used for very short letters.

Envelopes must be addressed double space, with beginning of name, street, address, city, and state on marginal line.

How to Obtain Good Duplicates and Triplicates on a Typewriter

"In making out triplicates many typists have difficulty in securing perfect alignment on the copies," said one operator, recently. "The carbons are likely to be a shade above or below the line. Here is a plan which obviates this difficulty.

"Before inserting the sheets, push the lever which operates the paper release. Then slip in the sheets, being sure that they coincide. Following this, snap the release back into position, and you'll find that your carbon copies are in perfect alignment; in other words, the type strikes *on*, rather than over or under, the horizontal lines."

Carbon Copies vs. Press Copies— Plain Envelopes vs. Window Envelopes

The findings of the Commission on Economy and Efficiency appointed to overhaul the business methods in vogue in the government departments at Washington also have a very direct application to private business.

In comparing the two methods of reproduction

named in our title, the commission's verdict was unanimously in favor of the former.

To press-copy 1,000 letters cost $2.80 in materials alone; 1,000 carbon copies cost but 56 cents, the net saving to be credited to the latter method amounting to $2.24 a thousand. Other advantages of the carbon copies are adaptability for filing, neater originals, convenience in handling copies later, and readiness for immediate mailing of the original.

Another point thoroughly covered by the commission was the question of window envelopes. It developed that the expense of addressing envelopes came to $6.50 per thousand. The new-style envelope cost but 60 cents a thousand more than the opaque forms —in many sizes but 30 cents a thousand more. The saving came to $5.90 per thousand, thus making an annual total saving of $102,907 on the 17,442,000 envelopes used yearly.

The commission admits that on a few classes of correspondence the use of the window envelope is impracticable. But these have been deducted in their estimate of total possible saving.

Dictation by Telephone

"Our department managers have considerable correspondence to get out in the course of a day," said the efficiency man of a great department store, "but not enough to warrant the assignment of a girl's entire time to each manager. Consequently, whenever a stenographer's services were required we

despatched one from the correspondence department.

"It developed, however, that very often interruptions delayed the progress of the work. A salesman might call, or the department manager's presence be required at the main office; sometimes a girl would consume a couple of hours in receiving a half-dozen letters.

"'Why not transact this business over the 'phone?' I reflected, one day. 'By keeping the girls right here, they could be engaged in routine work constantly, except when actually needed for dictation. Furthermore, it would save the time required in going to and returning from the department manager's desk.'

"The new system has worked perfectly. Now the girls are constantly engaged in actual productive labor. When an executive wants to get out some letters, he calls up the central office, is connected with a stenographer, and rattles off his correspondence. In case he is interrupted, she can proceed with her typing until she is needed again. And no time is wasted in walking long distances through the store."

A New Wrinkle in Business Correspondence

"Here's a new one on me," remarked a local business man as he tossed the writer a letter.

"Note that directly under the date they've typed the phrase, 'Replying to your letter of Aug. 21st.'

"A good idea I call it. It removes that stereotyped interest-killing phrase from the initial portion of the body of the letter, and yet, by its presence, assures

that no confusion will result from lack of data as to just what the writer is talking about."

In concluding a letter, says an office manual, avoid stereotyped forms:

Example: "Awaiting your reply with interest."

Or:

"Trusting that we shall be favored with your order," etc.

Say, instead: "It is not simply because we want the order that we are anxious to send you these goods. That's one reason, of course; but we want most to show you what complete satisfaction buying from us really means. You have our Style Book. Do not lose this opportunity."

Or:

"The coat you have asked about is one of our most beautiful models, and it is one of our best values, too. You could not make a better selection."

As regards the physical appearance of letters, the following pointers are valuable:

Quotations: When a paragraph is quoted in the body of the letter, both right and left margins of the quoted paragraph must be indented at least five spaces further than the regular paragraphs.

Quotations should be single spaced; quotation marks should not be placed before each quoted paragraph, but only after the last.

When an original letter is quoted in a follow-up letter, do not inclose the quoted letter in quotation marks.

Specific instructions for side margins.

For example:

The left margin is controlled by the left marginal guide, which should be set at 20. There is no excuse for an uneven left margin.

The right margin depends upon the words ending the line. In attempting to keep this margin even, it is often necessary to divide a word of several syllables, placing the last part on the next line.

To further assist you to keep this margin even, the following facts should be observed:

Under no circumstances let the line extend beyond 83. Better stop at 76 than at 85.

Better divide a word at 76 (or up to 83, of course) than to extend to 84.

Place the right margin guide at 80; this causes the bell to ring at 75.

If necessary to go beyond 80 (up to 83), press the right release key.

Saving Typists' Time

"It is surprising how much time is saved by an improvement involving but a fraction of a second if the process is repeated often enough," remarked a typist.

"We do a tremendous amount of circularizing in this office. Here is a little device which has proved practicable. Instead of inserting but one envelope, addressing it, and removing it, we insert an envelope to a point represented by turning the platen six spaces;

then insert another, again turning the platen six times, and continue this until the first envelope is properly located for addressing.

"We then address it with a vertical left-hand margin and remove it. Another envelope is then inserted, and turning the platen brings the second one into position. By repeating this process indefinitely a constant chain of envelopes passes through the machine. The saving of time comes in the fact that the platen is not turned clear to the center of the envelope for each one addressed. Actual tests of the old and improved methods have demonstrated that a substantial saving of time is effected by the latter during a day's work."

Is Your Business Correspondence Up-to-date?

"Within the past few years I have noted a great change taking place in business correspondence," remarked an office manager. "Instead of feeling obliged to adopt a quasi-legal phraseology freely interspersed with polysyllables, people are beginning to write as they speak—simply, and directly to the point.

"I ran across some data bearing on the subject, recently, which impressed me so favorably that I embodied it in a bulletin to be distributed to our correspondents. Here are some of the items:

Do not say, "We wish to acknowledge the receipt of your esteemed communication." You should say, "We are glad to receive your letter."

Do not say, "We trust the dress is in your possession ere this." You should say, "We hope you have received the dress."

Words, Expressions, etc., Not to Be Used

For example:

Do not Say:	Say, Instead:	Reason:
Inclosed herewith	Inclosed (simply)	Inclosed can mean only herewith.
At the present time.	At present.	The and time are unnecessary. Avoid unnecessary words.
Two pair.	Two pairs.	The plural of pair is pairs.
This quality goods	This quality of goods.	In the first sentence quality is used as an adjective when it should be a noun.
The demand for these goods has been greater than we looked for.	There has been a great demand for these goods.	The first expression would indicate that we did not expect much of a demand, and it would not, therefore, be good salesmanship.
You are due us $2, or we are due you, etc.	There is a balance of $2 due us, etc.	Due us, in this connection, is not good usage.
Your favor (or communication) has just reached us.	Your letter (postal card, telegram) has just reached us.	Favor or communication is not good. Some years ago favor implied a delicate compliment, but it has been so constantly used that this meaning has been lost.
We shall try to always please you.	We shall try always to please you.	Avoid split infinitives.

You can make no mistake in selecting either of the three.	You can make no mistake in selecting any one of the three.	Either must NOT be used in referring to more than two.
We are anxious to know if you found everything satisfactory.	We are anxious to know whether (or not) you found everything satisfactory.	Do not use if in a subordinate clause in the sense of whether.
You have had the goods quite some time.	You have had the goods a considerable time.	Quite some, quite a few, etc., are not in good usage.
Our goods are different than others.	Our goods are different from others.	Avoid different than, say different from.
We extend you our apologies.	We apologize.	Extend means to stretch out. It should seldom be used as a synonym of give.
We beg to acknowledge receipt of your order, etc.	We acknowledge (with pleasure) the receipt of your order.	Beg should NEVER be used in this connection.
Just as soon as we hear from you we shall send your goods at once.	Just as soon as we hear from you, we shall send your goods.	At once is unnecessary with just as soon as.
Our usual perfect service.	Our usually perfect service, or, our usual, perfect service.	An adjective cannot modify another adjective.
On March 28th we wrote you stating that the dress you returned has not been received.	On March 28th we wrote you that the dress you returned had not been received.	Wrong sequence of tenses. Do not use a present perfect tense with a verb denoting completed action in past time.

Cutting Correspondence Costs

"When I joined this organization some months ago," said an office manager, "a force of correspondents was employed chiefly for the purpose of acknowledging receipt of orders. Each letter was personally dictated.

"Upon going through the files, I discovered sufficient similarity among the letters to warrant the hope that a plan of using stock paragraphs might be applied which would result in the entire elimination of dictation.

"It was easy to divide the letters into types. Some were mere acknowledgments without further comment; others involved an explanation as to why some of the shipment was omitted; others covered cases in which none of the goods required was in stock; others dealt with remittances which were more or less than the sum required.

"It was a simple matter to prepare stock letters applying to these instances. Naturally, in the paragraphs referring to the peculiar factors involved in the particular order referred to, a space was left for the insertion of the proper words or figures.

"Now a letter goes to the typist with a slip attached, reading perhaps as follows:

1 ..... 11th
28.....2 boxes, 18 by 24, dble. 2nd Am.
94
6

"The typist thereupon writes as follows:

Gentlemen:

Your valued order of the 11th was received to-day.

We are shipping by freight your order as requested, with the exception of the omission of 2 boxes of 18 by 24 dble. 2nd American. Our warehouse reports a shortage of this size and we shall forward this item upon receipt of same from the factory, unless you notify us to the contrary.

We are confident that the quality of the shipment will please you and we hope that you will call upon us whenever in need of glass.

Thanking you for the order and hoping to hear from you again soon, we remain

Very truly yours.

"The method of procedure is, of course, self-evident. The typist referred to her book of forms, selected paragraphs 1, 28, 94, and 6, and that was all that was required.

"This plan permits us to substitute eight-dollar-a-week typists for fourteen-dollar-a-week stenographers. Also it has reduced our correspondence staff seventy-five per cent.

"Now I am evolving a plan whereby we can use actual form letters filled in where necessary, thus still further reducing the labor of typing.

"By the use of the original ribbon used in making the form letter and the adoption of a method of reproduction which is far superior to ordinary duplication I believe that this will prove to be practicable."

For the Stenographer

The following is quoted from an office manual:

Inserting Carbon

When inserting carbon between sheets of paper, place it half an inch from the top and left side of the sheet of paper so that when the letter has been written you can remove the carbon with the right hand, holding paper with the left.

Erasing

When erasing over carbon, take a blotter and insert it under the sheet on which you are erasing, but over the carbon sheet. Then erase, and the blotter will prevent the carbon from smudging. This also prevents the wearing out of the carbon paper in spots.

Use a pencil eraser first when erasing, and then finish with a typewriter eraser. This makes a very clean erasure, for the pencil eraser takes off the first coat very neatly.

Underscoring

When underscoring two or more characters, always lock your shift-key. Then, while striking your underscore, run ribbon along by turning the ribbon-spool crank.

Dating

Change date at given hours. For example:

The date must be placed in the upper right-hand side under the heading. The month is written in full, then the day, followed by a comma, and the year. Do not write "st" or "th," etc., after day of month. Do not place a period after the date.

On ordinary business stationery, 8½ by 11 inches, the end of the date-line is to come as nearly as possible at 80. To accomplish this, the following scale has been arranged: in the months from September to February begin the date at 64; from March to August at 67.

Letters transcribed up to 4 P.M. are to be given the date of

transcription. All letters transcribed after 4 P.M. are to be dated the following day.

Letters returned for correction are to be corrected the same day, if possible.

Estimating the Length of a Letter

Special attention must be paid to centering the letter. In every instance the typewritten matter is to be as nearly as possible in the center of the page—that is, the space under the letter-head and the space beneath the letter should be approximately the same.

No positive rule can be given with regard to the point at the top of the page at which the address and salutation are to be placed. It is a matter of careful judgment.

The phonograph slip that accompanies the cylinder is a guide, though the dictation of different correspondents varies greatly in amount of typewritten matter. Some correspondents speak quickly and without hesitation, so a relatively small part of the cylinder would be used. Hesitation, corrections, etc., also take up space. A correspondent's habits of dictation should be carefully considered before beginning to type.

As a general rule, any letter occupying less than five spaces on the slip is a "short letter," and is placed well down on the page. A letter using from six to twelve spaces is a "medium-sized letter" and is placed a little higher on the sheet. Any letter covering thirteen to twenty-five spaces is about a "full-page letter" and starts well up on the page. Any letter covering more than twenty-five spaces on the phonograph slip, in all probability, requires two sheets.

A Simple Idea Increases this Stenographer's Speed

"I have substantially increased my speed in taking dictation," said a stenographer, "by drawing vertical lines down the center of the pages of my note-book. This means that upon coming to the end of a line I have less space to cover to reach the beginning of the

next line. Of course I cover as much space in the aggregate, taking a page as a whole, but that is not the point.

"The delay incident to breaks involved in covering the entire width of the page in one motion is obviated and consequently my speed has shown a notable increase."

A Time-saver for Typists

"Here is a simple idea which has substantially increased my output," said a typist, recently. "Up to a short time ago, I have always addressed the envelope at the time of writing a letter; this even though I had twenty or thirty letters to transcribe.

"'Why not type the envelopes in succession either before or after the letters?' I reflected, the other day. 'This will save the labor of readjustment for each envelope.'

"I now pursue this plan with a quite noteworthy saving of time and trouble. Applied to a large office, employing many typists, it should result in a substantial increase of output."

Pointed Paragraphs for Enterprising Typists

Frederick P. Fish, who resigned a one-hundred-thousand-dollar-a-year position as president of the American Telephone and Telegraph Company, because he could earn more in private practice, believes in giving credit where credit is due.

"It seems a strange thing to say," he once remarked,

"but I sometimes wonder if I could hold this position satisfactorily if it were not for my stenographer. She knows as much as, or more, about the routine and detail of my duties than I do; she lifts a vast mass of petty worries from my shoulders. Were it not for her actual genius for organization and her high degree of sheer executive ability I would have no time for the far-sighted planning which is the most important feature of my position."

Doubtless there are many big figures in the business world who echo these sentiments. An alert, conscientious stenographer is worth her weight in typewriters. Here are some pointers from one of this sort:

"My employer's time is worth twenty dollars an hour," she remarked, "hence any device which will save his time is valuable. I noted that in taking his dictation much time was consumed in obtaining the name and address of the person to whom the letter was going. This he always dictated slowly to insure absolute accuracy.

"I suggested that he eliminate this feature; merely give each letter a number in the order of its delivery, and that I affix the name and address through reference either to the letter he answered or to the office files. By pursuing this policy a substantial saving of high-priced time is effected.

"Here is another valuable wrinkle which I have found saves time and also improves the appearance of my letters. Often when typing a sheet I continued the text to a point too close to the lower margin. Lacking a gauge, this is likely to occur. By cutting

a little rectangular hole near the lower edge of the carbon sheet I am warned of my approach to the proper point for ceasing typing. The hole shows through the top sheet as a light spot, thus acting as an effective gauge.

"Finally, I have discovered a simple method of avoiding lost time and poor workmanship in cases where letters with their carbon copies must be removed from the machine before the sheet is completed. Often this occurs when a hurry-up job intervenes. To insure a certainty of a proper registration upon reinsertion, I fasten the top, carbon, and under sheets tightly together with clips before removal from the carriage. This holds them securely in the proper relative position, so that upon being reinserted I can continue my work from the point I stopped, with no danger of producing a poorly executed carbon."

A Carbon Copy Inclosed with the Original Letter

"Time is money—most emphatically so," said the proprietor of a concern which does a large export business. "And it is to save time that we have our typists make two carbons of every outgoing letter to foreign parts. One carbon copy goes in our files; the other, on very thin tissue, bears the printed line, 'Kindly return this copy when you answer,' and is inclosed with the original letter.

"When the reply arrives, it is not necessary to expend valuable time in searching the files; the carbon of the letter which evoked the response is attached to the answer.

"We figure that the saving of time greatly overbalances the negligible expense of the extra stationery and carbon paper. As for the typists, it is just as easy to make two carbons as one."

Envelopes of Various Colors Serve to Simplify Sorting of Mail

"Here's a time-saving device which we've recently developed," remarked a banker.

"You see this stack of mail? Note the half-dozen different colors used for the envelopes. Most of our mail comes in return envelopes supplied by us. When we used white envelopes only, much time was required to sort the mail. Now we use a different color for each department. Deposits, transits, collections, credit inquiries, etc., each has its own distinctive color. A glance now serves to sort the mail. The saving of the cashier's time by this scheme amounts to a good many dollars in the course of a year."

Efficiency Principles Eliminate Ten Typists

"Much that I have accomplished here is of interest only to similar large establishments," remarked an efficiency engineer whose reforms have effected a saving of nearly two hundred and fifty thousand dollars per year in a great department store, "but here is one idea (which, by the way, I cannot claim to have originated) that can be almost universally applied. I refer to the use of stock paragraphs in correspondence.

"In tackling our correspondence problems, I began by making an analysis of our outward-bound letters, covering a considerable period. Practically every contingency arising, it developed, could be covered by an assortment of stock paragraphs comprising twelve beginnings, twenty-three endings, and forty short letters. This list I ordered typed, mounted on large cardboards, and placed on the desks of the correspondent and his typists.

"Thereafter it was a simple matter for the dictator to read the incoming mail, jot down the figures applying to the stock paragraphs which would constitute the reply, and distribute the slips to the girls. This idea, which saves a vast amount of time, can be applied in some degree to the correspondence of almost every office.

"Another time-saving device in letter-writing is to utilize form letters with a space left at the end of the lines to be filled in with the words which will make that letter directly applicable to the case of the recipient. These two simple measures, combined with a carefully studied and uniform arrangement of stationery in the desk drawers, thus eliminating all false motions, have resulted in the release of ten typists.

"This means a cash saving of nearly four thousand dollars a year; not just this year, remember, but for years to come. There is no reason why these methods should not be applied to thousands of offices, even down to the smallest. For even though a man employ but one typist, to reduce unnecessary labor in letter-writing will allow her time for other duties."

II

PROBLEMS OF PERSONNEL

Efficiency in the Office

"When I tackled the problem of increasing the efficiency of our employees," said an office manager who is in charge of a staff of several hundred typists, "I realized that the point at which I could make the easiest and most spectacular showing would be that of selection.

"'Start with good timber in the first place,' I argued, 'and you'll have a tremendous initial advantage.'

"My first move, therefore, was to formulate a series of preliminary tests to which applicants for positions were subjected. Here is the method pursued at present.

"First, I interview the girls, select those who appear to give promise, and to this group, which comprises but about fifteen per cent. of the total number of applicants, I offer the opportunity of taking the examination. About forty per cent. pass. Naturally, these tests vary with the nature of the work required. But all are set certain definite, concrete tasks to be accomplished within a certain time limit. Those who successfully survive this ordeal are then told that they

will be notified when needed, unless, as often occurs, their services are immediately required.

"This plan, as you can see, was calculated to insure a supply of eager, alert, efficient workers—a sort of picked squad. A big percentage of what I have accomplished here is traceable to that start.

"Upon being put on the pay-roll the new employee reports to the Educational Department. Here a text-book, giving full details of the work she will be called upon to do, is closely studied. This book contains a description of the one best and standardized method of performing every one of the several hundred operations which the girl will be called upon to master.

"She practises these operations until all false motions are eliminated. In this school work the employee is also subjected to additional and more severe tests calculated to demonstrate her accuracy, speed, rapidity of perception, etc.

"These are based upon tests similar to those compiled by Professor Walter Dill Scott, of Northwestern University. Some girls fail to measure up to our high standards and are rejected at this point. This, briefly, covers the second feature of my system. The first is rigid selection; the second, proper instruction.

"After completing her course of training—which, by the way, is spent principally in actual productive labor—the new employee graduates to her regular job in the department to which she has been assigned.

"She receives a weekly wage based upon her production in relation to what constitutes a standard day's work. A careful study of what can be reasonably ac-

complished has supplied us with the data for this estimate. For instance, an eleven-dollar-a-week operator is expected to produce one hundred square inches of typewritten matter hourly, allowing for time spent in taking dictation, etc. If a girl exceeds this she receives a bonus, and if she exceeds it consistently, she automatically raises her weekly wage. Certain standardized penalties are exacted for errors.

"So this gives you the third item in my plan for increasing the efficiency of our staff. First came selection; second, instruction; and, third, a bonus system of payment.

"Naturally, you're interested in knowing what has been the result. Salaries have increased from an average of nine dollars to that of eleven per week. Labor costs, figured in relation to the actual labor product, have decreased almost seventy per cent. In other words, the girls produce more, earn more, and we receive more. As to which of the three factors I have named plays the biggest part in the result I don't know."

Quantitative Tests for the Selection of Employees.—I

In an article which recently appeared in the *Annals of the American Academy of Political and Social Science*, Professor Walter Dill Scott criticized the ordinary haphazard method of selecting employees, and submitted a series of tests as tending to weed out the incompetent and, by a process of elimination, enable only the fittest to survive.

Professor Scott writes:

> Historically, it has been the practice of many commercial and industrial organizations to recuperate their forces of employees by the employment of young boys and girls as helpers for menial service. The wages paid these employees were small, and no careful selection was deemed essential. These helpers were given no systematic instruction. There was no plan in routing them from one position to another in order that they might learn the whole or any significant part of the business. Promotion from the ranks was insisted upon in many instances, even though no attention was given to preparation for such promotions. The children who accepted such positions were frequently those who had already failed in school. Their failures were mainly due to lack of interest in school work, and this lack of interest could usually be traced to a lack of native intellectual ability. The ranks were therefore filled by many who had already prove themselves to be incompetents. No attempt was made to make the most of this defective native ability, and yet the executive assumed that the higher positions must be filled by recruits from this untrained group of intellectual weaklings. This absurd method of selection is still in existence in many firms.

The weak spot in this argument is the fact that most pedagogues realize that the professor's claim that "this lack of interest in school work could usually be traced to a lack of native intellectual ability" does not stand up under the test of empirical evidence.

A high-school teacher of over forty years' experience once told the writer that her observation of the careers of former pupils had convinced her that there was no relation between high records in school work and later success in business. Many people think that the curricula of our schools are so detached from the needs

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of every-day life that a really intelligent child who possessed any power of original thought would not be inclined to take his school work seriously.

Furthermore, so many factors other than sheer intelligence enter into business success, that one would hardly seem justified in rejecting all but the youngsters with good school records. Such qualities as initiative, perseverance, nerve, and willingness to assume responsibility are not registered on school-report cards.

Professor Scott then takes up the question of previous records. He writes as follows:

One factor frequently recognized in the selection of employees is that of the *Previous Record*, but, unfortunately, this very important factor is frequently regarded as useless because of the impossibility of securing trustworthy and usable information from previous employers. In attempting to secure more trustworthy and usable information the following blank has been devised and used successfully:

Blank 1

.....1918

.....

.....

Dear Sir:

Mr. ..... of .....
has applied to us for a position as salesman and given you as reference. He states that he was employed by you as .....
..... for a period ..... Will you please advise whether this information is correct? Why did the applicant leave your employment? .....
.....

Please place a check-mark in the space below that indicates the character of his service:

	Good	Fair	Unsatisfactory
Work	( )	( )	( )
Conduct	( )	( )	( )
Ability	( )	( )	( )
Character	( )	( )	( )

Would you be willing to re-employ him? .....

Would you recommend him for the position applied for? .....

Out of ten men filling the position which the applicant held with you, what would be his comparative rank? ..... (If he would be the best, please mark his rank 1; if the poorest, please mark his rank 10; this estimate is, of course, only an approximation, but we will greatly appreciate your best judgment in the matter.)

Sincerely yours,

.....

This blank does not encourage the former employer to use general and meaningless expressions, but whatever he says may be readily used in quantitative determinations. Unfortunately, a great flexibility seems necessary in the use of the blank, but where possible a demand is made that this blank should be filled out in full by the last three employers, if the applicant has had that many. With these blanks before him the employment manager can change the data to a percentage basis. For instance: if all the previous employers fill in all the blanks under "Good" and put a (1) in the last paragraph, the applicant is then given 100 per cent. on Previous Record. Corresponding percentages are given for all the various combinations found in the blank.

This would seem to be a great improvement on the usual methods. But the inherent weakness of judging by previous records is, of course, still present. That "it's a difference of opinion which makes betting on

horse-races" applies even more strongly to this matter of personal estimates of individuals.

The professor then discusses the question of native intellectual ability and says:

The *Native Intellectual Ability* of the applicant is determined by means of a series of mental tests which test, not the learning, but the native ability. The series of tests employed are adjusted to the general type of applicants and the nature of the service to be rendered. For some positions emphasis is placed on inventive ability, for others on initiative, for others on quickness of thought, etc. The applicant is then graded by a percentage figure indicating the native ability in each of the qualities under consideration, as well as by a single figure to express the entire native intellectual ability so far as tested. The blank here reproduced is one that has been used with good success in testing salesmen for several organizations.

Lack of space prevents the reproduction of Professor Scott's entire series of tests for salesmen. We reproduce a sufficient quantity to enable the reader to comprehend their nature.

The professor says:

The applicant is given 100 per cent. in speed if he completes the blank in ten minutes, 0 per cent. if he completes it in sixty minutes, 50 per cent. if he completes it in thirty-five minutes, etc. He is given a grade of 100 per cent. in accuracy if he makes no errors. Correspondingly lower grades are given for various mistakes or numbers of mistakes. No attempt has been made to determine definitely the particular mental ability tested by this blank. Although its use has been discontinued because of improved substitutes, it might well be given as a fair sample. It was never given except as one of a series of tests, as no adequate conclusion can be based on the findings of a single test.

Instructions for Tests 2, 3, and 4

After each word printed below you are to write some word, according to the further directions. Write plainly but as quickly as you can. If you cannot think of the right word in about three seconds, *go ahead to the next.*

2. Write the opposites of the words in this column, as shown in the first three.

good — bad
day — night
up — down
long —
soft —
white —

3. Write words that fit the words in this column, in the way shown in the first three.

drink — water
ask — questions
substract — numbers
sing —
build —
wear —

4. Write words that tell what sort of a thing each thing named is, as shown in the first three.

lily — flower
blue — color
diamond — jewel
oak —
measles —
July —

(A total of ten words was included in each of the above tests.)

5. Add 17 to each of these numbers. Write the answers as shown in the first three.

29	46	64
18	35	49
60	77	62

(A total of twenty numbers was included in the above.)

6. Get the answers to these problems as quickly as you can.

1. What number minus 16 equals 20?

2. A man spent $\frac{2}{3}$ of his money and had $8 left. How much had he at first?

3. At 15 cents a yard, how much will 7 feet of cloth cost?

4. A man bought land for $100. He sold it for $120, gaining $5 an acre. How many acres were there?

5. If $\frac{3}{4}$ of a gallon of oil costs 9 cents, what will 7 gallons cost?

6. Write opposites for this column, as shown in the first three. If you cannot think of the right word in about ten seconds, go ahead to the next.

bravery — cowardice
friend — enemy
true — false
serious —
grand —
to win —

(Twenty words were included in this test as well as in Test 8.)

8. Write in each line a fourth word that fits the third word in that line in the way that the second word fits the first, as shown in the first three lines. If you cannot think of the right word in about ten seconds, go ahead.

color — red;	name — John
page — book;	handle — knife
fire — burn;	soldiers — fight
eye — see;	ear —
Monday — Tuesday;	April —
do — did;	see —

Nos. 9 and 10 consist of two additional questions designed apparently to test rapidity of perception and accuracy.

The writer doubts if the findings from a test of this character have much bearing upon a salesman's fitness for his job. One wonders if Professor Scott has ever sold goods. Later in his article, the pro-

fessor reproduces a blank "devised for and used by our organization, having a large amount of statistical work of the general type here indicated."

Unquestionably, written tests for a position of this character serve their purpose. The limitations of the job are so narrow that it is easy to determine an applicant's fitness. Similarly, if one is hiring a stenographer, it is a simple matter to test the candidate's speed and accuracy. But salesmanship! that's another story. Too many factors which cannot be determined by any written tests enter into a salesman's success to render examinations of this type of value.

Assuming that a man is of good intelligence, that his personality is inoffensive, that he is moderately fluent and has a good presence, it is the writer's opinion that the chief assets of a salesman are a cheerful disposition coupled with dogged perseverance. In other words, character and temperament are the two vital factors.

Any man can deliver his canvass with a smile at 9 A.M. But the man who can put the same vigor into his canvass at 4 P.M. after a day of turndowns is a salesman. Written tests fail to display these qualities.

Past performance and a trial on the job—those would appear to be the only real tests of a salesman's ability. Professor Scott and other practical psychologists are rendering business an inestimable service in pointing the way to scientific selection of employees. But it is probable that the pedagogues are inclined to overestimate the range of application of their findings. Too many indeterminable factors enter into a great many jobs to make scientific tests of practical value.

1 1

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45 23

and so on up to 55 and 28 respectively.

Salary and Bonus for Typists

"The best system of payment for typists," said an office manager, recently, "is the salary plus a bonus plan. If you put them entirely upon a piece-work basis, the temptation to sacrifice everything to speed and quantity is strong. On straight salary, the incentive for consistently maintained volume is lacking.

"We pay our staff a certain stipulated minimum wage, plus an additional amount on all work in excess of a fixed standard. We can do this because so much of our work is of a uniform nature.

"In measuring work done, I use a measuring-column," and the speaker handed the interviewer a cardboard measuring-column like that reproduced. "The typewriter people supply these rules free, but, of course, you can manufacture one on a machine in a few minutes."

How Good Management Stimulates Employees to Their Best Efforts

"'The average female stenographer takes no interest in her work; she plans on leaving business life within a few years, in order to establish her own home; her real interests are entirely outside the office. What is the use of trying to develop an able, enthusiastic employee out of such fundamentally unpromising material?'—that's the attitude of altogether too many executives," remarked a particularly successful office manager. "For it's that viewpoint that spoils potentially promising employees.

"It was when I was but a youngster in my early twenties that I discovered the proper method of stimulating the interest and initiative of a stenographic staff. I was very ambitious and energetic, and it was not long before I found myself appointed head of the correspondence department, with a stenographer, a Miss Kelly, assigned to my exclusive use.

"Doubtless I suffered considerably from swelled head, and there is no question but that I was savagely intolerant of others' shortcomings. It was not long before my stenographer and I were at odds. It seemed to me that she betrayed no interest in her work, that she made inexcusable mistakes in transcription, and that, taking it altogether, she was hopelessly incompetent. The more I criticized her efforts the worse she became. I was on the point of transferring her to another department and trying another stenographer when I met the head of the mail-order

section, the division from which Miss Kelly had been shifted.

"'How do you find Miss Kelly?' he inquired.

"I told him my troubles.

"'The girl is all right,' he asserted. 'You can't be handling her right. Get off at my floor and I'll give you some tips about her.' He then went on to explain that Miss Kelly possessed unusual intelligence and initiative. 'Give her some insight into your job and its problems,' he continued; 'put some responsibility on her shoulders and she'll quickly respond to it. Don't treat her as a mere pawn, a cog in a machine. She's not that type. Get her pulling with you instead of against you and she'll prove to be a valuable lieutenant.'

"The mail-order man's words made a deep impression.

"'Perhaps the fault lies largely with me,' I reflected. 'I'll try different tactics and see how they work.'

"I had a little heart-to-heart talk with Miss Kelly —told her that I felt that I had been in some degree at fault, and suggested that we make a determined effort to pull together. I gave her enough information about the correspondence to render the letters of some significance; delegated some of my own minor duties to her; in short, I followed her previous employer's suggestions.

"By the end of a week you'd have recognized neither Miss Kelly nor her work. She promptly responded to my changed attitude and developed into a first-class worker.

"Since that time I've been in charge of many hundreds of employees. And it's by applying the lesson I then learned that I've succeeded in enlisting their loyalty and enthusiasm. A certain degree of discipline must, of course, be maintained. But the more one can lead rather than drive, the more results he'll obtain from the average office employee."

Increasing the Efficiency of a Stenographic Force

"In managing a force of stenographers," said an office manager, "three goals must be sought. So far as possible, work should be arranged and allotted (*a*) so as to render each executive satisfactory service; (*b*) so as to keep each girl busy according to her capacity; and (*c*) so as to avoid the fluctuations incident to rush and slack periods.

"When I first came into this office I discovered that a reorganization was necessary. Five girls had been assigned each to the exclusive use of each of five executives. I soon noted that they had only enough work to do to occupy about seventy per cent. of their time. The balance of the stenographic force, comprising three who might have been termed general-utility girls, were obviously overworked. Not only did they take dictation from our salesmen in the morning, but also transcribed to our regular order-blanks all orders received.

"After some study I made the following changes. One girl was selected as head stenographer, and the others were told to follow her instructions as regards

assignments. Upon her shoulders was placed the responsibility of seeing that work was evenly distributed among the eight girls, herself included.

"The stenographic department was given a corner of the office, the leader's desk facing the others. She was equipped with a desk 'phone through which she received calls for her staff's services. The office-boy was notified to follow her instructions as regards the delivery of transcribed matter.

"This plan equalized the burden of labor and improved the quality of the work of the entire force.

"Another radical improvement was the passing of a rule that any girl taking dictation should be relieved at the end of an hour's steady work. This prevented notes from becoming cold before being transcribed, evened up the work, eliminated the end-of-day pressure of transcription, and relieved the girls of the nervous strain attendant upon hours of steady dictation.

"Two weeks' trial of the new plan demonstrated that six girls could easily handle all the work, and two of the original staff of eight were sent to our warehouse, where vacancies existed."

"Most typists sit too low in their chairs," said an expert, recently. "The chair should be at such a height that when running the machine the operator's forearm is level. By sitting in a chair so low that the elbow point is below the lowest row of keys, unnecessary effort is exerted in reaching up. After hours of work, this results in a decrease of speed.

"The position of one's hands is very important. The wrist should be flexible, held over the keys with the fingers curved over, almost in a quarter of a circle.

"Another labor eliminator is to sit just a shade to the right of the center, instead of squarely in front of the machine. The reason for this is the arrangement of the keyboard, the keys of which slant from left to right—that is, L is to the right of O; 0 is to the right of 9. By sitting to the right, one's fingers, instead of having to be constantly shifted, have only to move straight up and down."

"In too many offices," said a typist, recently, "dictation is delayed until late in the day. This crowds the heavy work of transcription into hours when one's vitality is lowest—means work done hastily and carelessly—results in many errors. A little forethought in this regard on the part of executives would raise the standard of the work produced."

An Equitable Distribution of Work Means Contentment Among the Office Employees

"Human beings are not machines and it is a mistake to act upon the assumption that they are," said an office manager.

"Theoretically, for example, a stenographer sells so many hours a day of her time for a certain sum, and should not be in any degree interested in the treatment accorded others of the staff. But in actual practice, one stenographer is, naturally, strongly inclined to

compare her own tasks with those of her companions. To see that a just distribution of work is effected is a strong factor in maintaining a contented spirit among the stenographic corps. If one girl is more capable than the rest and does more work, it is well to recognize this not only by an increase in pay, but also to occasionally comment upon her exceptional efficiency, taking care to phrase your praise in a form which avoids odious comparisons. Otherwise she will feel that she is being imposed upon, and that attitude is fatal to good work."

A Simple Plan Which Changed the Mental Attitude of this Office Force

"To the normal individual, work in reasonable amounts is as necessary as food in maintaining a healthy and happy frame of mind," said an executive who is a keen student of human nature. "Recreation loses its zest unless indulged in sparingly as a change from work.

"But for work to exert its beneficent effect the worker must feel that it is of real value; that he is accomplishing something worth while. This is why the perfunctory efforts exerted in a gymnasium fail as a substitute for useful labor. The constructive instinct in mankind is strong; it demands an outlet.

"The evolution of modern industry, with its necessary division of labor, has, to a great extent, made many grades of work seem detached, without connection with any useful final result.

"Hence many workers in minor capacities lack interest in their labors. They cannot see that they are contributing their little part to a big result. Consequently they work listlessly, without enthusiasm.

"This was a condition which prevailed in our office up to a couple of years ago. The clerks worked without interest; errors were made; we had a corps of clock-watchers.

"After devoting some thought to the problem, a simple solution occurred to me. The members of the office force took no interest in their tasks because the work seemed pointless and futile. The relation between their labors and the delivery of our finished product from the factory was not clearly apparent. Many of them had never entered the factory.

"I at once installed a system whereby the clerks were conducted through the plant in groups. They followed the manufacture of our product from the raw material to the finished article. And their own connection with all this activity was made clear.

"The change in their attitudes was amazing. They began to see that they were very useful cogs in the great wheel of industry. They returned to their desks with a feeling that their efforts counted in the great scheme of things.

"The quality of their work promptly improved; they ceased to watch the clock; they felt that, although the niche they occupied might be small, it was indispensable. A spirit of co-operation developed. I wonder that I never realized the value of this idea years before."

Saving Time in Office Work

"Every effort is made to conserve the time of fifty-thousand-dollar-a-year men," remarked the office manager of a factory. "The waste involved in permitting them to spend even a few minutes a day in detail work is so obvious that much thought is devoted to methods which will leave every precious moment free for constructive planning.

"But in thousands of offices much of the time of twenty-dollar-a-week men is spent in doing five-dollar-a-week work. In a large organization the money value of time thus consumed totals large sums annually. We have devised several methods of eliminating this factor of waste. For example, when invoices of purchases arrive, we enter them in a purchase journal, segregated alphabetically. From this book postings are made to the purchase ledger, to bills-payable book, and to the distribution book.

"By having all invoices arranged in alphabetical order by a six-dollar-a-week boy, the clerical staff, the members of which are paid three or four times as much, are enabled to do their posting very quickly. In posting to the purchase ledger, our force averages from five to six postings a minute.

"Another time-saving plan, which at first thought sounds Chinese in its apparent inversion, is to have the bookkeeper work from the end of the journal toward the front instead of beginning where he left off. This means that he works from the back to the front of the ledger as well. While he is completing his pen-work

with his right hand, his left hand is finding the proper page for the next entry; a result which would be impossible if the next page desired were *under* the one upon which he is at work. This has resulted in increasing his efficiency two hundred per cent."

Hiring Help Scientifically

"The employer or employment manager who selects human material on any basis other than that of impartial tests is not only betraying his intellectual limitations," remarked a business man, "but he will soon fill the place with types which more or less approximate his own, with the final result that the organization will become lopsided.

"Individual reactions mean nothing whatever regarding an applicant's ability. Each of us admires the perfection of his own type. If we select lieutenants on the basis of what we consider our knowledge of human nature or our intuitive perceptions, we are merely indulging our prejudices. And that is the way most people are hired. The secret of securing a job, then, is to keep trying until one finds an employer or employment manager who sufficiently resembles one's own type to result in a favorable impression. What a footless way to conduct business!

"Many years ago I received a lesson. I was one day calling upon a friend who was the vice-president of a realty and home-building company. I was about to leave his office when he remarked:

"'Won't you remain a few minutes? An applicant

for a position as head of our rental department is waiting outside. I'll have him shown in for an interview, and would be very grateful to have your impressions of him.'

"I agreed to the suggestion and was present during the half-hour interview.

"'Well, I'd just as soon have a snake in the office,' exclaimed my friend, after the man's departure.

"'My idea, exactly,' I replied. 'Too suave and oily. "Uriah Heep" to the life. I like a man to be frank and outspoken, with a sense of humor. That fellow counts ten before he utters a word. There's something sneaky about him.'

"Two weeks later I found the man installed as head of the rental department. Refusing to be discouraged at the rejection, he had sought out the president of the company. The latter had been deeply impressed by what he termed the man's 'subtle diplomacy and tactful courtesy,' and had hired him over his colleague's head.

"He turned out to be a very successful executive and a valuable asset to the company. As a matter of fact, my friend and I objected to the man because he differed from us. We merely indulged our prejudices.

"Realizing what it is that makes betting on horse-races, I now have my organization operated on civil-service lines. In so far as is possible, the human element is eliminated in selecting men either for promotion or to join us from outside sources. I want the one ablest man for the job, regardless of whether or not he appeals to me personally.

"One of my leading executives is a man with whom I am utterly uncongenial. He is solemn, pompous, lacking in humor, and a religious crank. But he demonstrated his fitness for the job and he got it.

"For the bigger jobs my men generally promote themselves through performance. But in the lower ranks we have a system of quarterly written tests. These serve to rivet attention upon particularly promising material, and thus the men have no chance to cry favoritism. Written tests also are used in taking on new help.

"The National Association of Corporation Schools recently issued the findings resulting from a questionnaire submitted to various concerns." The ratings indicate the relative importance of the various qualifications in the eyes of employers:

Previous employment, general	100
Age	97
Names of employers	97
Duration of employment	94
Nature of work	94
Married or single	92
Reason for leaving	92
References	92
Scholastic education, general	89
Drinking	87
Health, general	84
Present health	84
Qualification for clearly defined position	84
Mental attitude toward advancement	82
Remuneration during previous employment	79
Past health	76

Definite desires 71
Natural aptitude as indicated by preference to various subjects studied 66
Scholastic standing 60
Habits, general 60
Definite plan for progression 60
Weight 58
Ideas as to the relative importance of money in comparison with other things 58
Height 55
Home environment 55
Parental supervision 55
Ultimate aims 53
Physical examination 45
Smoking 45
Previous employment, how obtained 39
Line of descent 37
Working hours, previous 37
Financial obligations, general 37
Reasons for debt, if any 32
Church 32
Societies 32
Plans for meeting financial obligations 29
Social standing, general 29
Clubs 24
Progress made in society 21
Athletic diversions 21

Are You Mentally Subnormal?

"Scientific selection of human material, careful training, and a proper system of payment—those are the three essential factors in the creation of a competent clerical force," said an office manager.

"In this connection, the work being done under the auspices of the National Association Schools of Scientific Business, of which Mr. Sherwin Cody, of Chicago, is managing director, is of great interest. This organization has compiled tests for use in weeding out the less competent applicants for positions, and also has evolved brief and practicable educational courses for office help, designed to increase efficiency in spelling, simple arithmetic, grammar, punctuation, touch typewriting, etc.

"Not only are the tests valuable in selecting fresh timber from outside the office, but in promoting those within the ranks they serve to indicate the most promising material.

"As Mr. Cody truly states: 'Tests of mental alertness should always be supplemented by tests of industry, such as a memory test (concentrating for five minutes on memorizing a given passage, then using ten minutes to reproduce what is remembered). Results in business have three factors: 1. Mental alertness. 2. Industry. 3. Time. Time and industry will make a small amount of mental alertness go a long way, and mental alertness lacking time and industry will accomplish little.'

"Observation of some thousands of tests given by Mr. Cody indicates that the same test given the same persons at intervals of a month will show perhaps five per cent. of freakish variation, due to not knowing just what is required, inability to get the mind working normally in the short time allowed, and nervousness; but a series of seven or eight tests extending over an

hour in every case corrected this freakishness. No single tests could be depended on to do more than eliminate incompetents; but a series of seven or eight tests, or two or three longer tests, would safely separate the passable into three classes, the fair (or passable), good, and excellent. In matters where judgment had to be exercised in grading, agreement of graders could not be secured to a closer point than a scale of five—failure, poor, fair, good, excellent. General judgment based on such records in ninety-five per cent. of the cases of employees tested seemed to be verified by employers. Many important considerations in employing help cannot be tested at all, and must be discovered by examination in person by an employment expert. But the clearly competent can be separated from the clearly incompetent so far as mental ability and industry are concerned; and records of speed and accuracy, and knowledge of the fundamentals of education, will enable employers to distinguish as much as first, second, and third choice on the operations actually to be performed by stenographers, bookkeepers, office-boys (fundamentals), general clerks (accuracy in addressing and filing, etc.), and correspondents (common sense and tact in answering letters). Beyond these five classes and the few subjects involved Mr. Cody's experiments have not yet carried him. It is believed that the fundamental education tests are good for all classes where education is a requirement, as industrial apprentices, salespersons, etc.

"Here is one of the tests:

Fractions (short cuts)

Multiply mentally and write the answers in pencil on this sheet after the problems. If you are unfamiliar with short cuts, do the best you can in the time allowed. Accuracy is more important than speed, but if you finish in less than the time allowed, note the exact time. Decimal points essential.

Time allowed, five minutes.

Multiply:

103 at 4 1/4 c	70 at 57 1/7 c
34 at 5 1/2 c	1866 at 66 2/3 c
6643 at 6 1/4 c	40 at 37 1/2 c
72 at 8 1/3 c	144 at 87 1/2 c
124 at 12 1/2 c	112 at 6 2/3 c
99 at 11 1/9 c	18 at 62 1/2 c
84 at 14 2/7 c	32 at 18 3/4 c
333 at 33 1/3 c	17 at 42 1/2 c

"For this test, a rating of 30¼ represents the average speed, with 7 errors; and a rating of 65 represents the maximum speed, with 4½ errors. These ratings are figured, we are told, as follows: answers to all the problems in column one count as 31, in second column also as 63.

"Because the range of qualifications for office help is comparatively narrow, it would seem that tests of this sort would permit of the selection of an all-star aggregation.

"Similar tests for outside salesmen, which have been propounded by various educators and psychologists, seem to me well-nigh worthless. Office employees are, to a great extent, machines. The capacity of a machine can be accurately measured. But in branches of endeavor in which initiative and ideas are de-

manded, as in the cases of salesmen, executives, etc., there the only safe test would seem to be that of performance."

A Concern with the Right Spirit

"Some men are interested in their work both for the work's sake and for their own sake," remarked an executive, recently, "while with others the work is in no degree an end in itself, merely a means to an end, the latter being the weekly pay-envelope. This attitude means one of two things: the job is wrong or the man is wrong. Sometimes it's the first reason and sometimes the second.

"Often the right man in the wrong job appears to be fundamentally worthless. Shifting him to the proper niche will cure the trouble. But for some men there *is* no right niche. Get rid of them; that's my policy.

"When you come in contact with an establishment where each man's eye is centered only on his pay-envelope, there you find petty jealousy, office politics, sycophancy, and backbiting. If you're working in such an atmosphere, get out; that's my advice. Get a job with a competing concern, for sooner or later the whole establishment will begin to suffer from the inroads of competitors who are in a healthier condition.

"When a younger man I was employed by a concern which at that time was a leader in its field. I spent five years in working up to the position of assistant office manager. Once ensconced in this job,

I promptly began to urge certain reforms about which I had read. I wanted our typists shifted to a piece-work and bonus system of payment; demanded that the entire wage scale be readjusted in accordance with the actual productive power of each individual typist, suggested that a brief educational course be installed, etc. My superior concluded that all this was a reflection upon his régime, this despite the fact that I sought to be tactful and was willing that he be credited with all the glory.

"The measures I advocated were suppressed, and upon my threatening to force the issue by appealing to the higher-ups, I was summarily discharged. 'Too ambitious,' was the verdict.

"Naturally, I went directly to the president.

"'You're well out of this place,' he informed me. 'The office manager is close to heavy stockholders and, consequently, my hands are tied. I can place you elsewhere, however, and eventually you'll see that your discharge is a blessing in disguise. This entire establishment is honeycombed with pull, preference, and politics. Because I'm getting a high salary, I remain, but we cannot long compete with younger competitors who, instead of discouraging ambition, place a premium upon it.'

"True to his word, the president secured me an opening with this concern, one which is forging ahead at the expense of its moss-grown rivals. Here the spirit is healthy and optimistic. Every man is interested primarily in his work. There's an *esprit de corps*, a sense of united effort, and team play which is inspiring.

"Promotions are made upon merit. Pull and politics play no part in a man's advancement."

How to Hire Men

"In hiring men," said the executive of a large institution, "I never look for bargains, because my experience has convinced me that they don't exist. By bargains I mean hiring a forty-dollar-a-week man for fifteen dollars because hard luck has forced him to accept a fifteen-dollar job.

"If you haven't a forty-dollar-a-week job open, pass up the applicant. If you don't, he will remain with you but a short time; merely long enough to enable him to find a job suited to his capacity. Or if he really intends to stay, he will probably disturb your organization by seeking to push himself up too quickly. Unjust as it seems, it is bad policy to jump a man from a fifteen-dollar job to a forty-dollar one, even though he deserves it. The rest of your staff thinks that favoritism has been exerted and is likely to become dissatisfied. This is merely a general rule, you understand. No doubt there are exceptions.

"Another type against which I'm on my guard is the clever floater. He is hard to resist, because his experience has equipped him to talk almost any executive into giving him a chance. Many of this type are very capable employees; they leave a trail of regretful employers in their wakes. Their records are clean except for one point—they won't stick. It is their very ability which is their curse. They know that

they can obtain and hold a job almost any time. Hence their readiness to resign whenever a restless spell attacks them. Needless to say, they are a poor investment. Shortly after they become of real value and you've become accustomed to depending upon them they leave. And that means the trouble and expense of breaking in another man.

"But there again there are exceptions. One of our high-salaried executives, who has been with us ten years, had drifted from New York to Hong-Kong when we hired him. But we happened to get him at the psychological moment when he had concluded to settle down. As a general rule, steer clear of floaters. They're a poor investment.

"Analysis of my records shows that our most satisfactory employees have been recruited from the ranks of men from twenty to twenty-five years of age, equipped with one or two or possibly four years of high-school experience.

"But with so many more young men of scanty funds going through college, we may find that in the future more and more college men will join us and make good."

Saving Delivery Expense

"You know it developed at the George Junior Republic that even the most incorrigible boys promptly became pro-social and law-abiding as soon as they were put in possession of a little piece of land they could call their own," remarked a laundry proprietor.

"That fact suggested a plan which has worked well in my business.

"I used to supply my men with horses and wagons. The expense was heavy; the live stock was handled carelessly, overfed or underfed, overdriven; my vet. bills were very heavy.

"Finally I concluded to sell my horses and wagons to my drivers on easy payments. Now they own them. The wagons bear the name of my establishment; they are uniformly painted. My collection and delivery expense is less than previously—and my men earn more. Why? Merely because they are more careful of the horses and wagons. This saving divided between the men and myself means more money for both parties."

How to Hire Competent Employees

"Daily I am amazed at the haphazard methods used in employing labor," said the general manager of a large concern.

"The accident of mere acquaintance has been the determining element in the employment of many men for positions entailing heavy responsibilities. Merely that a man may fill a position satisfactorily does not mean that somewhere in this country of one hundred million souls there isn't a man who could satisfy its demands far better.

"No matter how relatively unimportant a job may be, I believe in establishing contact with a big field of applicants; then, by a process of elimination, finally

selecting the one best man. This means that I have constantly at hand a good supply of tested timber for advancement.

"Whenever possible I avoid the fallible element of personal impression by rigid competitive tests. All our stenographers, for example, have obtained their positions by successfully passing written examinations which weeded out the less efficient applicants.

"But the nature of the qualities demanded in many berths precludes the use of such simple and convincing methods. To obtain applicants for higher executive positions, I advertise in the newspapers and trade media. As I am inclined to believe that in nine cases out of ten a man who can think clearly can write clearly, I do not hesitate to eliminate perhaps seventy-five per cent. or more of the applicants by the letter test. This leaves a balance of twenty-five per cent. either to be personally interviewed or to be requested to write once more, giving further particulars.

"At the personal interview I rate each applicant by his past record and experience, to be verified later; his appearance; his ability as displayed by his conversation; and last, but doubtless not least, by the impression which I receive by my intuitive perceptions.

"I am not infallible. I have hired several false alarms. One man who impressed me unfavorably was later employed by a competitor, and now receives a higher salary than I do. An extremely nervous individual, he was the type which is unable to put its best foot foremost at a crucial moment. This mistake has cost us a great deal of money. But from the

experience I learned a lesson. Now I seldom make a choice on the first interview. I interview those who qualify for the final heat, to use a sporting term, three or four times before making an irrevocable decision. Had I pursued this policy in the case mentioned, the man I rejected would have recovered from his attack of buck fever and I'd have discerned his real merit.

"The main point, however, is to apply convincing tests whenever possible; in other cases to pick your man from an abundance of material."

"An Executive Should Possess a Good Working Knowledge of Psychology," says the President of this Concern

"A theoretic knowledge of human psychology is a great asset to an executive," said the president of one of this country's largest concerns. "Yet few possess it.

"In common with most business men, I held the idea for a great many years that in the event of a vacancy in a sales manager's job the best salesman was the proper man to take the place.

"Now I know from experience that a man may be a very good salesman and make a very poor sales manager, also that a man may be a mediocre salesman and an extremely efficient sales manager. The exceptional man may be both.

"This information, which is worth a great deal to a man in my position, was gained from observation and experience. Had I been grounded in psychology, I would have learned it at a much lower cost in actual

money. Here's how I happened to acquire the information.

"Some years ago it occurred to me that, with a view to increasing the value of their services, some system should be developed for the education of our employees.

"I began by inviting a few of our promising young men to my house one evening a week. Here we discussed practical commercial problems. We surveyed the business from several angles: production, sales, administration, etc.

"The class grew until I was obliged to transfer our class-room to the plant. Our procedure was about as follows: First came a lecture from some experienced member of the staff. Sometimes a successful salesman talked on the technique of salesmanship; or the office manager told his story, emphasizing the value of accuracy in filling and receiving orders. Again, the credit-man discussed the business from his angle, making a plea for closer co-operation from the sales staff.

"After this came a fifteen-minute period which we called the open forum. Any one was at liberty to ask questions or to propound suggestions.

"The session wound up with a written examination covering the subject of the evening's lecture. Ten questions were asked; the answers displayed the pupil's grasp of the subject. At the end of the term, a rating was given each pupil. The leaders were considered in line for a promotion to a traveling-salesman's position at the first opportunity.

"At the end of our first term, one young man stood head and shoulders above the rest. He was in a class

by himself. Not only did he have a much more thorough knowledge of the process of production and the channels of distribution, but he was endowed with remarkable imagination and power of initiative. 'Shepley's got everything,' said our vice-president. 'He'll be a world-beater. Let's put him out on the road.'

"He was a disappointment from the start. His sales were below the average in volume. He simply couldn't put it over. We'd about decided to send him back to the warehouse when a territorial managership became vacant. The sales manager for the Northwest resigned to enter business for himself. Just for an experiment, I sent Shepley up there. He controlled a force of five salesmen.

"Immediately he began to devise schemes for supplying his men with additional incentive. He installed a mailing system to support their efforts. He developed the idea of dealer co-operation, then in its infancy, to a point far beyond our most extreme conceptions. Sales increased by leaps and bounds. He made good from the beginning. To-day, twelve years later, he is sales manager at headquarters, with all the district managers subordinate to him.

"The explanation? Shepley is a mental type; he belongs at a desk. He is a natural tactician; a born general. Most good salesmen are motive types. They're in their element right on the firing-line. They're magnetic, good mixers, men of action. Shepley is a man of thought. And his particular brand of thought has been worth millions of dollars to this concern. And I came within an ace of relegating him to the ware-

house, where he'd have been of little value to the organization!"

Reducing Labor Turnover More than One-half

"If we could only devise a method of holding our men," said Dalton, the general manager, "it would help some. The labor turnover in our collection department is terrific. We can't afford to pay any more and we can't afford to be eternally breaking in new men. I estimate that the average cost of securing and teaching new men on this job is at least sixty dollars."

"It's a problem," conceded Whiting, the branch manager, "and I see no solution for it. All our competitors are confronted with the same conditions."

"There's a solution to everything," reflected Foster, the young stenographer, who overheard the conversation. "I'll see if I can't evolve some plan to settle this difficulty."

Three weeks later the two executives were again in conference. Foster sat at his little desk near the branch manager's.

"I've been thinking about that question of labor turnover," he volunteered, as Dalton arose to leave. "Why wouldn't it be a good plan to pay the men a dollar a week less, giving them fifty-two dollars in a lump sum as a bonus at the end of each year's service? Add to this the sum forfeited by those who don't stick."

"It sounds good," agreed Dalton. "Try it out, Whiting," he added, turning to the branch manager. "Often the simplest ideas are the most effectual."

Within six months the labor turnover had been reduced over one-half and Foster had been called to the main office at increased pay, and placed in a job which was directly in line for rapid promotion.

Test Yourself by this Standard

"Here is a blank application which is used by one of the country's great advertising agencies for the purpose of judging the qualifications of candidates for employment," remarked a business man.

"It struck me that most of the questions applied equally well to almost any line of business. Look it over and see how you measure up. Note that they demand the information regarding your record with former employers four times, *i. e.*, from four employers.

Have you judgment?
Manual accuracy?
Mental accuracy?
Clearness of expression?
Patience?
Perseverance?
Poise?
Energy?
Self-confidence?
Optimism?
Are you systematic?
Conscientious?
Deliberate?
Impulsive?
What do you lack?
What is your ambition?

Do you do your best work when it is planned for you or when you plan your own work?

How seriously do you take your work?

What is your hobby?

Does it interfere with your business?

How do you spend your leisure time: chief sports or amusements?

Are you a member of any club, organization, or society?

Former Employers

Name and address.

What work did you do?

What salary did you receive?

Why did you leave?

What one thing do you think you contributed while at this work which improved or developed either it or the method of handling it?

Of what part of your work are you most proud?

"Then comes a test which applies only to the advertising profession.

Select from the last issue of the (name of well-known national weekly) what, in your opinion, are the three best advertisements. Give your reasons for this selection in not more than 100 words.

"This application-blank is supplemented by a personal interview upon which much depends."

"The Man, Not the Money, Is What Counts," says this Credit-man

"When a man requests a line of credit with us," said the credit-man of a big wholesale house, "he always seems surprised to learn how comparatively little interest I display in ascertaining how much he *has*, and how extremely anxious I am to discover how much he *knows*.

"My experience has taught me that mere money can be easily lost. But ability and character—those are stable, permanent assets which can create more money.

"Only yesterday I extended one man a liberal line of credit, despite the fact that he had but twelve hundred dollars cash capital. And the day before I held a man with five thousand dollars down to terms which were little better than cash.

"The first man is twenty-five years old, has acted as chief clerk for a store which sells our line, is backed by five years' experience, *and has saved his twelve hundred dollars capital out of his salary.* I quizzed him closely regarding his knowledge of the principles of retailing, and found that he has a very good grasp of the subject. Reforms instituted by him largely explain the success of his present employer. Investigation of his character references disclosed the fact that his record is clean and aboveboard.

"The other man, who is worth five thousand dollars, is a quite different case. He, too, has worked as a clerk for a retailer who distributes our product. But he could not tell me of one instance where he had improved or developed the methods in vogue in his store, this despite the fact that he has worked there four years. He displayed very little knowledge of the fundamental factors of successful merchandising, and admitted that he had not saved a dollar out of his salary. It seems that he recently inherited his five thousand dollars from a maiden aunt. I do not question this man's honesty; as in the other case, his

character references showed up well. Barring accidents, the first man will win out. The chances are all against the second man. I told him so frankly.

"'If you want to buy here,' I said, 'we'll sell you. But we can allow you practically no credit. We must have our money within ten days from date of invoice, and at no time can your unpaid bills total more than one hundred dollars. I doubt if you make good. But if you insist upon starting your own place, we might as well get your money as any one else. You'd do better to hold on to your present job; put your money into first mortgages and delay your own experiment until you've developed more. If, in the course of four or five years, you can work up to be chief clerk of the store in which you're now employed, then you'll have demonstrated that you're of the timber to succeed independently.'

"Well, he appreciated my frankness, but refused to accept my advice. He placed an order for a bill of goods and will open within two weeks.

"Some concerns rate the credit essentials as follows:

1. Capital.
2. Character.
3. Ability.
4. Promptness.

"The order in which I place these factors is as follows:

1. { Character, / Ability.
2. Capital.
3. Promptness.

"With me the man bulks larger than the money."

How Siebolt Saved His Firm $6,000 a Year

"*What one thing do you think you contributed while at your work which improved or developed either it or the method of handling it?*"

Edward Siebolt reread the phrase. He was glancing through an application-blank used by a great organization for the purpose of securing information by which to judge the qualifications of candidates for positions.

"What one thing have *I* done in my present job?" reflected Edward. "I've been here two years; I've worked hard. But I begin to see that I've worked blindly. I've never displayed any initiative. How would I show up if asked to fill out this blank? Not very creditably, I fear. If I expect a raise January first, I'd better do something to deserve it. I'll set aside an hour every evening in which to read business literature."

It was one afternoon, a couple of months later. A temporary lull offered the young invoice clerk an opportunity to approach the general manager.

"Mr. Gridley, I've been reading up on modern efficiency methods lately, and I've gained some ideas which could be applied right here in the office," said Edward.

"Spring them," suggested Gridley. "Expenses are steadily mounting, and any plan to save money will be welcomed."

And Edward went on to outline his proposed methods.

"Siebolt, you've struck something!" exclaimed his superior, at the conclusion of the young clerk's explanation. "I'll appoint a man to relieve you, and Monday you can start in and see how your plans work out."

Siebolt began by collecting a mass of past correspondence from the files. This he proceeded to analyze. It developed that practically all the firm's outward-bound communications could be covered by stock paragraphs and letters. An assortment comprising eight beginnings, twenty-eight endings and forty-six short, complete letters took care of almost every possible contingency. Siebolt had these typed, numbered consecutively, mounted upon large cardboards, and placed, one on the correspondent's desk and duplicates upon those of the typists. Previous to this all letters had been dictated into the machine.

"Now all you have to do," explained Siebolt, "is to read your incoming mail, pencil the numbers of the paragraphs on your board comprising a reply, and distribute the numbered slips to the girls."

"Saves my time, the girls' time, and the cost of the records," observed Calkins, the correspondent. "Pretty soft. Why didn't we ever think of it?"

By the end of a couple of weeks it developed that four of the typists could be released for duties in other departments. The balance remaining could easily handle the volume of work.

"This is only a beginning," said Siebolt. "My next step will be to have typed form letters reproduced by machine with spaces left at the ends of the lines

for filling in. Much of our correspondence can be thus handled." This proved to be the case. Two more girls were then shifted elsewhere.

Following this, the young iconoclast evolved a carefully studied and uniform arrangement for the desk drawers. Specially constructed pigeonholes which held the letter-heads at a slight angle, together with an arrangement of the envelopes in such a manner that a single motion of the left hand sufficed to insert them in the machine, effected a substantial saving of time and lost motion.

"Now then," said Siebolt, "here's another suggestion which will increase production. When work slackens, instead of dividing the letters among the entire force, thus inducing a general, though unconscious, lessening of speed throughout, keep one, two, three, or as many girls as are needed, working at normal capacity, and assign those not required to other tasks. Otherwise the morale of the whole force is, from a speed viewpoint, seriously damaged."

These suggestions, combined with a bonus system of payment which Siebolt adopted from the method evolved by a great publishing-house, resulted in so increasing production that the services of four more typists were dispensed with and they were assigned to another department.

"Now then," said Siebolt, "it's three months from the time I started to inaugurate these ideas. We're turning out just as much work as we ever did, and we're doing it with ten less typists than previously."

"That means a saving of over six thousand dollars

per year," said Gridley. "Very good, Eddie. You'll find forty dollars a week additional in your envelope, beginning next week. And we want you to make a complete survey of the entire plant with a view to heading a permanent department on costs and efficiency. This raise is just a starter. The more we can pay you, the better satisfied we'll be."

The Value of Personality in Business

"To achieve success," said a prosperous merchant, who is noted for the breadth of his interests, "two factors are necessary: first, a thorough knowledge of your business, and, second, a complete understanding of men. I don't know which should be rated higher. Too many people assume that the first is all that is required. This despite the fact that not a day passes that does not witness the promotion of some genial, courteous chap who, perhaps, is not an expert in his line, over the head of a crabbed crank who, by any test of sheer knowledge, would easily defeat his successful rival.

"The ability to 'get along with people'—what an asset it is! One of the most conspicuous successes of our day, George W. Perkins, possesses this power to an extreme degree. Even J. P. Morgan, who was not distinguished for his sweet disposition, promptly succumbed to the charm of Perkins's personality.

"Of course, personality alone will not get you far. But neither will ability. Personality coupled with ability—there's an invincible combination.

"Have I made it clear, I wonder, that I am using the word 'personality' as synonymous with 'a complete understanding of men'? If one grasps human nature and is anxious to make a favorable impression, he will succeed in making his listener feel pleased with himself and, at the same time, will not descend to crude flattery. That is what people call 'personality.'

"Too often consciousness of ability is accompanied by ill-disguised conceit. That is the handicap under which many competent men labor.

"If you want to score a success, study methods; you've got to be able to deliver the goods. But study men, too. To find a purchaser of your ability is often as difficult as to attain it. The man who studies men finds it easy to market his brains at a good price."

A College Education for Business Men

In his speech on Accounting delivered at the Commercial Education Congress at Washington, Mr. John Geijsbeek remarked:

"The post-graduate course seems more adequate to prepare a man for this work, as only a graduate possesses that knowledge of the world so lacking in the college man. As business ability consists chiefly in grappling seriously with the daily problems, it is necessary that the training in directing ability should only be given to graduates and to undergraduates." The author does not mean by this that instruction should only be given to the college graduate, but desires rather that the course be one of college education for

business men than of business education for college men, and concludes by regretting the formalities required of business men who seek to enter colleges after having acquired sound experience in the world of business and practical affairs.

"I think that Mr. Geijsbeek has put his finger on the weak spot in our present educational system," remarked a business man in referring to the above.

"Some psychologist has remarked that we remember only those things in which we're genuinely interested. And we're most deeply interested, the majority of us, at least, in matters pertaining to our daily problems. Any information which can be promptly and practically applied to questions which confront us right here and now is swiftly absorbed.

"Now the average undergraduate has only a derivative interest in his work. He has been told that it will be of value to him later, but he doesn't realize this from first-hand experience. As a result, it is only by an effort of will that he masters his lessons. The business man, however, who has been out in the world and who returns for a post-graduate course, attacks his lessons in a very different spirit. He is genuinely interested. The information which he is absorbing becomes an integral part of his experience. It is not a mere appendage 'learned and conned by rote.'

"To devise a method by which the undergraduate can achieve this burning interest in his work is a problem which confronts present-day pedagogy. The best solution I have yet seen is that worked out by Dean

Schneider of the University of Cincinnati. Here the students in some courses devote part of their time to shop work for wages in neighboring manufacturing plants, and the balance to class-room instruction which is co-ordinated with their practical labors."

Wanted—Self-starters

"Self-starters, that's the type which is hard to find in business life," said a prominent merchant. "And it's from their ranks that the executives are recruited. I have hundreds of loyal, efficient employees who are filling their own niches most satisfactorily. But very few of them are prepared to step into the job next higher up.

"Take that man, for example." He indicated a man of perhaps twenty-seven or twenty-eight years of age who was stationed at the silk counter. "From a positive viewpoint, he is above criticism. He is alert, courteous, and a thorough salesman. He has gained a strong local following. He knows textiles from A to Z. His sales total a very satisfactory volume. He is an able and valued employee.

"But, negatively, he is open to serious criticism. He lacks initiative; he has no knowledge of the fundamentals of merchandising; he has little, if any, real grasp of store or department problems; he knows nothing of business in a large sense. Ask him how many times his department's stock turned last year, he can't tell you. Inquire as to the sales expense in his section as compared with that of other department

stores, he doesn't know. Discuss the question of the best method of payment in order to secure the highest returns, he'll look blank. You see? What he knows he knows thoroughly. But he lacks initiative; he is limited by a certain narrowness, a mental inertia which prevents his grappling with questions which don't confront him daily.

"We have hundreds of that type. They're faithful, dependable, loyal. But they never get anywhere. What we and every business organization need are more self-starters."

The Business Man of the Future

"There is a great deal of loose thinking displayed in connection with the phrase 'survival of the fittest,'" remarked a man who has accumulated a comfortable fortune through old-fashioned, conservative methods. "Types who are fit in one century may be utterly unfit in the next. Men who will score a success in the complex life of the city may prove utterly unfit when confronted with pioneer conditions.

"The weak who seek to toady and flatter their way to influence may outstrip the strong who would scorn to descend to such methods. Unless the 'fittest' is qualified to mean fittest for the particular environment in which one is placed, it means but little. A feeble, dyspeptic financier with a keen brain to-day controls the destinies of thousands of strapping workers who could annihilate him with a blow. Turn the clock back a few thousand years and you'd find to-

day's master acting as scullion in the kitchen of the castle owned by to-day's dock-hand.

"I've a theory that right now we're witnessing a transition period in our economic life. The type which commanded success in the nineteenth century will, in my opinion, find itself pushed to the wall in the twentieth. Business, which has been largely a gamble, a speculation, is becoming a science. The successful gambler must give way to the trained specialist, the professional business man, the business engineer.

"Take my old friend, Fairley. Thirty years ago Fairley was a clerk behind the counter. But he had ideas, nerve, daring, and unlimited initiative. Through a series of successful plunges Fairley accumulated a fortune. To him business was an art; he loved it; through it he expressed himself and his temperament. Lately he secured control of a proposition which looked good to him, embarked upon a tremendous advertising campaign, and sat back waiting for the money to roll in. It didn't roll and Fairley dropped a quarter of a million dollars. Becoming desperate, he called in an expert to analyze the situation.

"'The principal difficulty, Mr. Fairley,' was the latter's verdict, after studying the records, 'is the fact that this country under the most favorable conditions could not possibly have absorbed enough of your product to show you a net profit on the campaign. You over-advertised. An analysis of the field before a dollar was spent would have indicated as much. In other words, the day you decided upon the amount you were to spend, you lost two hundred and fifty

thousand dollars. You didn't have a chance in the world.'

"The idea of proceeding in accord with the modern scientific methods had never occurred to Fairley. He's of the old school which regards business as a gamble and which expects to take a chance.

"Men of that sort cannot compete with the newer type. They served a useful purpose in their day. Through their nerve and enterprise they constructed the great organizations which were later merged into our present-day trusts. But the trusts have taken the gamble out of business. It is to-day a matter of cold-blooded efficiency.

"Be sure you're right, then go ahead, is the attitude of the man who has achieved the scientific outlook. And before he takes a step he spends months in analysis, research, and experiment. How often do you see a chain store close its doors? Mighty seldom. And the reason is that weeks of study and observation were devoted to selecting a location. And once opened, it is scientifically, that is to say, efficiently, conducted.

"No, the reins will be held by a very different type from now on. Nerve and dash will give way to knowledge and science. The dynamic, energetic men will fall before the quiet, studious plodders. The scientific brain, with its cold, implacable insistence upon facts, will dominate the artistic temperament with its flashes of inspiration. Personality, temperament, brilliancy —all these will acknowledge sheer intellect as their master. Men's environment is changing rapidly. And

the fittest under the new régime will be the business scientist."

Character Analysis in Selecting Employees

"The real point of the controversy now raging regarding selection of employees by character analysis," said an executive, "is not whether one's traits can be determined by his appearance, but rather whether this information can be practically applied.

"Generally speaking, we are what we look—every one knows that. No one ever saw a man who looked like Abraham Lincoln or Daniel Webster conducting a peanut-stand. Or if he did, he found that the person thus distinguished soon pulled himself up to a higher level.

"Every one who is equipped with ordinary perceptive powers is able to size up his fellows with some degree of accuracy. But the disciples of physiognomy and phrenology assert that they have developed this ability into a real science, with the result that they can give a complete and convincing analysis of the subject's characteristics, thus enabling an employer to assign an applicant to the one right job.

"I do not question that a physiognomist or phrenologist can read a subject more intelligently than can one who has never studied the science, but I *do* doubt whether their work is of great practical value. Roughly speaking, I would estimate the importance of the various factors entering into the judgment of an applicant's suitability about as follows:

1. Past Record, 30 per cent.
2. Demonstrated Experience and Ability, 40 per cent.
3. Personal Impression, 20 per cent.
4. Physiognomy and Phrenology, 10 per cent.

"Items 1 and 2, which appear to be synonymous, are differentiated in my mind by applying the phrase, 'Past Record' to such qualities as stability, honesty, reputation, etc., and the phrase 'Demonstrated Experience and Ability,' to the educational advantages and actual technical experience of the man. Number 3, Personal Impression, applies to the sizing-up process involved in any interview of this nature. Number 4 is self-explanatory.

"Now, of course, this estimate of the importance of the factors to be considered would vary with different jobs. If I were hiring a stenographer, 'Demonstrated Experience and Ability' would figure much larger. Actual tests would tell practically the whole story. Similarly, in employing a commercial artist, or copy man in an advertising agency, the samples of the work submitted would be the determining point. But in securing an executive, a salesman, or a man for any position in which it was more difficult to ascertain the applicant's qualifications, Number 1, Past Record, and Number 3, Personal Impression, would, of necessity, loom larger.

"Another factor to be considered is the man doing the hiring. Some people are singularly obtuse as regards their perceptive faculties. We call them 'poor judges of character.' A man of this type would rate Number 4 higher and Number 3 lower. Most people

who have investigated physiognomy and phrenology have become convinced that there is a great deal in them. But as to the practicability of applying them to the selection of employees, that is another question. Probably their most devoted adherents overrate their efficacy—their bitterest critics underrate their value."

To-morrow's Executives

"'The great trouble with the school of experience,' Henry Ford once remarked, 'is that the course is so long that the graduates are generally too old to go to work.'" It was the general manager of a great wholesale house speaking.

"That's a point I seek to impress upon the young men employed here. Too many of them do the tasks set for them faithfully and earnestly, but seem to utterly lack any real grasp of the business. As soon as they walk out of the door they dismiss their jobs from their minds and never think of them until the next morning.

"Now I want to bring forward a squad of winners here. I want every youngster in the place to make good. Not merely because we ourselves will need executives in the future, but for their own sakes. I urge our employees to profit by the other man's experience. In other words, to read and study business literature outside their working hours. Between the correspondence schools, the various night courses given by local institutions, and the vast volume of books and business magazines, there is little excuse for a

man's not gaining much of his knowledge *via* short-cut routes, nowadays.

"A man who follows this policy should, by the age of thirty, be better equipped than the 'school of experience' man at fifty. And it's the man who preserves the student's attitude toward business who will hold the big jobs in the future.

"My son is taking a course in business at one of the great universities. Assuming that he possesses good common sense and ordinary diligence, this training should be worth ten years of commercial life. He'll have that much start on the man who lacks that advantage. But the omission of such a course is not a fatal handicap. Knowledge gained by extra effort generally sticks. The young fellow who gains his education in business through evening study may nose my boy out at the tape.

"But somehow, somewhere, this additional knowledge, this power of profiting by the other man's hard knocks, must be acquired. Otherwise some one possessing the extra equipment will be sitting in a private office, 'in a position,' while the chap who was merely content to do just enough to hold his job will be doing just that—'holding a job.'"

Keeping Executives on the Jump

"There are altogether too many executives who make a good showing for a few months after receiving their appointments," said the president of a great organization, "and then proceed to relapse into mere

routine men; types who get through their day's work satisfactorily, but who never devote any real concentrated thought to their problems outside business hours.

"The human brain is a strange instrument. I think it was Emerson who remarked that we're all as lazy as we dare to be. Certain it is that the vast majority of people resent, and, if possible, evade, the effort required to attack and assimilate new ideas.

"Some time ago I became conscious of a spirit of loginess which seemed to be gradually pervading our organization. Production and sales were increasing, to be sure, but I had reason to believe that those of our competitors were increasing at a proportionately greater speed. Now it is utterly impossible for me to be a specialist in every branch of our business. That's what I have executives for. But because of the location of my office, I keep fairly closely in touch with the office manager's problems.

"I am an omnivorous reader of business literature. I read several business monthlies systematically and one weekly. In addition to this, I have a library of over three hundred volumes on various phases of business which I have read from cover to cover. I expect my executives to subscribe to and read the publications which apply to their particular specialty.

"One day I read an account of what had been achieved in the office of a great publishing-house by careful selection, proper training, and piece-work payment of stenographers. I clipped the article and had it filed in my tickler to come up for attention within

three weeks. This article appeared in a magazine to which my office manager subscribed.

"When the article turned up, I sent word to this executive that I'd like to see him.

"'Have you any ideas about increasing the efficiency of our force of seventy typists and stenographers?' I inquired.

"He confessed that he hadn't. Couldn't see but that everything was running smoothly.

"'You can easily cut expenses sixty per cent. merely by applying the principles explained herein,' I remarked, and handed him the clipping. 'That's from a magazine to which you subscribe. Better read it more closely.'

"Then I made a tour of the place. It seemed as though in the office of every executive I saw stacks of trade magazines, most of which had obviously never been read. Some were in the original mailing wrappers. The sales manager, the credit-man, the purchasing agent, the technical men out in the plant, the advertising men—everywhere I went I found men hard at work and gaining nothing new. They seemed like squirrels in a cage, desperately busy and getting nowhere. I verily believe that many of those men knew no more about their work January 1st, 1918, than they did January 1st, 1917.

"I went back to my office, nonplussed. Then I called each man into conference separately and explained why it was necessary for our success for us all to keep right up to the minute.

"'I want to see you men grow,' I said. 'I want you to be bigger, broader, abler men every year. None

of us knows it all. We've all got to keep wide awake or our competitors will beat us to it. From now on, every week, I'm going to send each of you a typed slip giving the barest digest of what new data I've learned about business during the previous seven days. It won't comprise over two hundred words, but it will deal with what I've gained from the perusal of a good many thousand words. *And every week I want to receive the same sort of report from each of you.*

"'This will help us to keep on the *qui vive* and we'll adopt every new plan or device for increasing production or sales and decreasing expense within seven days after it gets into print. Are you on?'

"They were on. And when I tell you that that simple device has increased the net profits of this concern seventy-five thousand dollars annually already, I have the figures in black and white to support my assertion—I mean seventy-five thousand dollars directly traceable to ideas thus acquired. And the plan has been in operation less than a year."

A Royal Road to Experience

"When I was a young man," said the elderly president of a great corporation, "the only way to learn the ropes in business was through experience. It was a long, hard, and wasteful method. Such a thing as business literature, educational courses in business, etc., were unknown. To-day, however, the young man who is ambitious can gain twenty laps on the field by devoting his spare hours to a study of the literature

pertaining to his subject. That there should be any who fail to avail themselves of this opportunity passes my comprehension.

"To illustrate: The other day in the smoking-compartment of a Pullman, I fell into conversation with a youngster in his early twenties. It transpired that he was an efficiency expert and that he specialized upon department-store problems. Claimed that he had just succeeded in reducing the annual expenses of one client over two hundred and fifty thousand dollars; this with no sacrifice of efficiency. What this young man's income is I don't know, but, obviously, any one who can achieve results on that scale can come pretty close to naming his own price. His clear and lucid explanation of just what steps he had taken to effect these savings was sufficient evidence of the truth of his claims.

"'But how in the world did a man your age ever accumulate so vast a store of information along business lines?' I inquired, after he had concluded his narrative.

"'Some four or five years ago I went to work for a manufacturing plant which at that time was being subjected to a thorough overhauling by an efficiency expert,' he explained. 'That was what started my mind working in that direction. The rest was simply a result of reading business books and magazines during my spare moments. My ability is no more than average. But, undoubtedly, I have more actual knowledge of business than most men. Through reading I have gained my experience by proxy. Now I'm be-

ginning to cash in on it. Why, there are enough business books given free of charge to-day to give a man a pretty good start. But lots of young fellows are too blamed lazy to read them even under those conditions.

"'Take the Burroughs Adding Machine Company, for instance. A post-card to them will bring *A Better Day's Profits* and *Efficient Cost-keeping*, two splendid books on business. Remington Typewriter Company give a valuable little book called *Cutting the Cost of Stenographic Service*. American Sales Book Company, of Elmira, New York, issue a book entitled *Where Have My Profits Gone?* which is invaluable to the retailer. Butler Brothers, of Chicago, distribute *Success in Retailing* and *The Butler Way System Book*, two works which every retailer should possess. The Beckett Paper Company, of Hamilton, Ohio, give a book called *Principles and Practice of Direct Advertising*. The American Multigraph Sales Co., of Cleveland, Ohio, issue several books on direct advertising. And all these, you understand, are free of charge.

"'Then, of course, a vast number of business books are for sale by various publishers who specialize in this field. By reading them one gains in a few hours the combined experience of many men for a long period of years.

"'There may be no royal road to learning, but systematic reading of business literature comes about as close to being a royal road to experience as any of which I can conceive. And experience applied is quickly translated into money.'"

"Make Applicants for Credit Pass an Examination," says this Credit-man

"Bradstreet's organization attributes thirty per cent. of all failures to incompetence, and twenty-nine per cent. to lack of capital," said the credit-man of a wholesale house. "But I lump both these items together under the single word incompetence. This gives us the latter reason as the cause of nearly sixty per cent. of failures.

"Incompetence is due to lack of native intelligence or lack of experience, or both. What is the lesson to the credit-man in these figures? Merely that he should ascertain by a searching series of questions just what the applicant knows about the conduct of business.

"An incompetent man will select a poor location, or will mark his goods too high or too low, or will overstock, or will hire discourteous clerks, or will permit store leaks to continue unnoticed.

"It is amazing how little many small dealers know about merchandising. They have no idea of system; no grasp of the significance of turnover, no ideas regarding checking their cash against their inventory, no real knowledge of their costs.

"The plan of subjecting applicants for jobs to written examinations is being widely adopted. I would not be surprised to see the same idea applied to applicants for credit. When a concern advances credit, it is merely loaning so much money. To demand that the borrower demonstrate his fitness to receive the

loan would seem to be but reasonable. I do not claim that this would, in all cases, result in just decisions. But I do believe that it would constitute a forward step in securing accurate information upon which to base one's judgment."

Democracy in Management

"My conception of a good executive is that of a man who, if engaged in educational work, would make an able teacher," remarked a man who bears an enviable record for securing the support and loyalty of his subordinates. "Just as our schools are filled with children who sit in a state of bored and apathetic stupefaction while a harassed pedagogue seeks to hammer home that astounding assortment of incongruous and disconnected data which is called an education, so industry is manned largely by an army of time-servers and clock-watchers whose sole object is how to do as little as possible and get the most for it.

"Who is to blame for this condition—the pupils or the teachers? the workers or the executives? In each case I hold the latter responsible. Or, to be fair in the former instance, I hold the Boards of Education responsible.

"Most schools are conducted to-day on the old, autocratic idea. 'Sit still and listen attentively, or it will be the worse for you'—that is the teacher's attitude. 'Do your work and do it quickly and accurately, or you'll get the blue envelope'—that is the executive's attitude.

"Now, then, the result of all this is that the rank and file in each case feel no interest in the organization; the tremendous dynamic force of the group spirit, that spirit which animates the successful army or the victorious football eleven, is utterly lacking.

"In school, the pupils are commanded to do a certain thing and they do it, perfunctorily, half-heartedly. They don't know what it's all about, neither do they care. The same applies in great measure to offices.

"But just try the experiment of consulting with your pupils or employees, rather than dictating commands, and watch the well-nigh instantaneous change in attitude. Promptly appears the reaction to responsibility, that latent force which lies within every normal person.

"The task in hand immediately assumes an entirely different complexion. A citizen of a democracy is far more interested in the commonwealth's welfare than is the inhabitant of an autocracy. He feels a sense of proprietorship, and reacts accordingly. In the George Junior Republic destruction of property and lawlessness at once ceased upon the allotment to each 'citizen' of his own vine and fig-tree.

"In a book on the Gary schools of Indiana, Mr. Randolph Bourne says:

> Some visitors, appalled by the freedom of the Gary schools, look about for signs of depredation. But they do not seem to find any. The visitor gets the impression that these schools have acquired a "public sense." The schools are the children's own institution, and are public in the same broad sense that streets and parks are public. The tone is of a glorified democratic club,

where members are availing themselves of privileges which they know are theirs. One expects children, unless they are challenged to inventive wickedness, no more to spoil their school than a lawyer is likely to deface the panels of his club.

"The Gary schools represent, perhaps, the most radical application of democracy to education that the world has yet witnessed, at least on so large a scale. And because the youngsters are encouraged to reach *out* for knowledge instead of having it bludgeoned *in*, they evince an enthusiasm and interest in their work which has startled the world of pedagogy.

"Similarly, a democratic management evokes a spirit of willing co-operation on the part of workers. No mere formulæ, however, will secure this result. The executives must undergo a rather radical transformation in their own attitudes to achieve any very lasting results. Profit-sharing, self-government, delegation of responsibility—all these are symptoms of the type of organization which has achieved democracy and which reaps the benefit in the shape of an alert, interested force of workers.

"But first we must grasp the idea of democracy in management in an abstract sense. The methods of application will immediately suggest themselves."

What Makes a Successful Executive?

In the course of a report on Vocational Guidance, Dr. Henry Clayton Metcalf, of Tufts College, Massachusetts, formulated the following interesting table of qualifications for an executive:

In selecting and developing leaders an appreciation of the factors or characteristics essential to efficient, successful leadership should be clearly formulated and carefully borne in mind. The essential characteristics of the successful executive may be said to fall under the following headings:

1. *Character*, integrity, resourcefulness, initiative, responsibility.

2. *Imagination.*—No man is a true leader who cannot project himself into the future. He must have ideas and ideals in order to lead.

3. *Judgment.*—A man must have perspective to see how many of his ideals are workable. He must have a scientific attitude —sound common-sense.

4. *Courage.*—Many men with good imagination and lofty ideals fail because they lack true courage. They are timid or they try to please everybody. Hence they do not go forward as leaders.

5. *Efficiency.*—This comprehends the habits of hard work, thoroughness, and constant accuracy. True efficiency comes from native talents for a particular line of work, plus special training, plus experience, plus devotion to the task, plus generosity in the work, plus conscience.

6. *Understanding of Men.*—This is more than mere *knowledge* of men. This is the most crucial test of genuine executive ability. Executives must not only know human nature, have a *knowledge* of men, but literally *understand* them, be able to sympathize with them, put themselves in the place of those under them, and exercise a "*pull*" from the bottom upward, and not a "*drive*" or "*push*" from the top downward. This understanding of men and the wise leadership of subordinates are the real tests of *organization* fitness.

7. *Sound knowledge* of the fundamentals of the industry and organization of which the executive is a part, and a knowledge of business or trade in their largest aspects. Many executives are inefficient and get into all sorts of trouble because they are not properly trained in the business in which they are to issue and execute orders.

8. *Skill*, which comes from the technique of practice and of business experience generally.

9. *Courtesy.*—Men and women are more and more grasping the business value of fair, courteous treatment. The response to the appeal to high ideals is definite, but discourteous treatment reaps unsatisfactory results. "Industry awaits the administrator who shall be all that a gentleman should be: efficient but humane, adroit but honorable, a lover of his fellow-men as well as a leader of them; and who shall use his power with gentleness, and his wealth with imagination, and shall illuminate the world of private property with light from the far-away interests of the heart."

If this be a correct conception of the essential factors of a successful executive, it should furnish a standard in discovering, selecting, and developing executive organization, and point out methods of instruction and educational procedure.

The head of a large industrial concern must first define in his own mind the product he desires from the various duties to be performed. In sizing up men, especially young men, for training and promotion to executive positions, he is exercising his most fundamental and vital function. *The selection, training, and functioning of executives determine the entire organization.*

A Passage from Exodus Solved this Business Man's Problem

"The expansion of the business of the man who cannot bring himself to delegate his duties and authority is limited to the amount of detail that he can personally oversee," said the proprietor of a manufacturing plant.

"I shall never forget a word of advice which was

given me many years ago when I was acting as superintendent of a factory. I could not bring myself to relinquish responsibility to my lieutenants, and, as a consequence, worked fourteen to sixteen hours a day. Finally it was decided to double the capacity of our plant. The president of the concern called me into his office one day.

"'Well, we've concluded to enlarge,' he remarked, 'and it will mean a lot more work for you. Your health is beginning to break under the present strain. How are you going to stand up under the added burden?

"'Now, Morgan, you've got to get a new slant on your job. You've got to learn to delegate your duties. When you go home to-night, you read Exodus eighteen: seventeen-twenty-six carefully and come down in the morning prepared to select some good timber to lighten your load.'

"For a moment I thought the old man was wandering. But when I got home I did as he suggested. Here is what I read:

. . . The thing that thou doest is not good. Thou wilt surely wear away, both thou and this people that is with thee; for this thing is too heavy for thee; thou art not able to perform it thyself alone. . . . Thou shalt teach them [the people] ordinances and laws, and shalt shew them the way wherein they must walk, and the work that they must do. . . . So Moses hearkened to the voice of his father-in-law, and did all that he had said. And Moses chose able men out of all Israel, and made them heads over the people, . . . rulers of fifties and rulers of tens. And they judged the people at all seasons; the hard causes they brought unto Moses, but every small matter they judged themselves.

"I saw the point. It was not long before I began to see that not all the brains of our organization were concentrated in my cranium. I selected and developed several able lieutenants. This left me more time to consider the plant's future needs. I began to get a more comprehensive grasp of our problems. From the reading and digestion of that passage of Exodus dates my development into a real business man."

Have You Perspective?

"You must have perspective—a breadth of view—in order to achieve success in business," says a booklet issued by a well-known correspondence school of accounting.

"This is the age of specialization in business, for it is by means of specialization that the greatest profit returns are secured. Every large business organization is divided and subdivided into departments and sub-departments, with relatively few managerial positions, and with scores of routine positions filled by routine employees. Each functions in his own narrow groove, with no opportunity of widening his perspective of the work of the organization as a whole.

"The bookkeeper posts away at his ledger, thinking only of the schedule that must balance. The stock-clerk earns his weekly wage by checking up invoices of goods purchased and bills of goods sold, with now and then an inventory of goods on hand. The cashier thinks by day and dreams by night of petty cash, pay-rolls, discounted bills, and extensions of notes.

The salesman frets over his failure to sell X, Y Company in the town of Z a double order of worsted fabrics, and spends his mental energy in devising new methods of selling-approach. The publicity man puts his mind day in and day out on newspaper space, pictorial booklets, display type, and special advertising campaigns.

"And so it goes, each employee doing his particular work and trying to do it well, in order that the monthly report of each department to the general manager may show that it is doing its share in the attainment of the profit object of the organization.

"*How much do you know of the work of your organization aside from your specialized duties?*

"Specialization has come to stay, and will doubtless be carried to even greater extremes in the future as enterprises continue to develop and become more complex. There are, however, to-day many signs of the growing conviction on the part of business organizations themselves that individual specialization must be accompanied, or, better still, preceded by, the development of individual perspective.

"The progressive business organizations of the present day have come to realize that their future business development—in fact, their future business existence—depends upon the development of managerial capacity in their individual employees. Many organizations, indeed, have turned schoolmaster and are conducting classes on company time and at company cost in Accounting, Law, Applied Economics, and in the related subjects of Finance and Management in

order to give selected groups of their employees a broad perspective of business as a whole and as applied to the particular needs and conditions of the organizations themselves. Other organizations are encouraging their employees to pursue outside studies, in many cases paying their tuition charges.

'It is impossible for the average man employed by a large organization to gain from his routine position a broad view of its workings as a section of the entire organization. He has neither the time nor the opportunity. The only thing he can do, therefore, is to take up an evening course of study which will supply him with the broad perspective of business necessary for his advancement."

Piece-work vs. Day-work

"The piece-work plan of payment, if combined with measures which will serve to correct the worker's tendency to feel satisfied with a certain minimum income, is doubtless one of the best systems for insuring a high output and predetermining labor costs," said an executive, recently.

"But in some plants the nature of the work is such that the piece-work idea is impracticable. Uniformity of output is necessary to its successful application. In such instances, the desirable personal-incentive element which is present under the piece-work system is injected by the following method:

"Operatives are timed to such a degree that it is possible to estimate the standard time required for

a job of any nature which may come into the shop. With each allotment of work goes a ticket giving the cost allowed for its completion. The worker who is paid a regular hourly rate can then figure the time allowed.

"If he completes the job before the specified hour, he is credited with the difference; if after, debited. If he shows consistent gains, at pay-day his rate of pay is increased; if losses, and an investigation shows that the time estimate is reasonable, he is shifted to another department or discharged.

"Thus, although the men are employed on a day-work basis, the advantages of the piece-work system are preserved."

How to Insure a Satisfactory Volume Under a Piece-work System

"One would think that men working on a piece-rate basis would be inclined to exert every effort," said the superintendent of a large plant, "but the fact of the matter is that human nature is such that some men will actually do less work on a piece-work basis than on a day-work. They are inclined to feel that it makes little difference to their employer as to whether or not they work hard, and, consequently, when they have a little money saved up some are inclined to slacken their efforts.

"Now, as a matter of fact, an employer is just as interested in securing a big output on a piece-work basis as he is on a day-work. For the overhead burden

remains practically the same, however the volume may vary.

"Several plans are in practice for maintaining a high average of effort among piece-work workers. Some firms pay a bonus at the year's end, comprising a percentage of a man's earnings, the percentage increasing in proportion to the level of production maintained. Others apply this idea, but on a monthly or weekly basis. And finally a drastic but effective stimulus is to discharge those workers who are absent from work too often or whose output falls below a certain standard.

"One thing is certain: the mere installation of the piece-work system does not insure great volume. Other measures are necessary to effect this result."

"Profit-sharing Means Permanent Employees," says this Executive

"We have operated on a profit-sharing basis for fifteen years," said Mr. Arthur F. Lewis, of the Simplex Wire and Cable Company, of Cambridge, Massachusetts, a concern employing several hundred men. "And the fact of our retaining the system is evidence of our successful experience of it.

"The chief advantage accruing from profit-sharing is that it tends toward the establishment of a permanent working force. What this means in added profits is known to every executive who has figured out the loss occasioned by the necessity of constantly breaking in new hands.

"Furthermore, profit-sharing is a strong influence in eliminating strikes and labor disputes. By emphasizing the fact that the interests of both factors, employers and employees, are identical, profit-sharing tends toward the maintenance of harmonious relations.

"Profit-sharing, furthermore, puts the employees to a great extent upon their own responsibility. They feel a certain sense of proprietorship in the establishment and will not tolerate soldiering and carelessness upon the part of certain employees who may not respond to the added incentive.

"I doubt, however, if this system has a very marked effect in increasing the actual daily output. Because dividend payments are made only once a year, the incentive for added effort is perhaps too remote.

"A bonus system of payments, however, supplies this missing stimulus. In the departments in which it is practicable, we operate on this basis. Thus we combine the two methods: profit-sharing to insure stability of our pay-roll; a bonus system to increase the actual daily output. This, it seems to us, is the ideal combination."

A survey of the actual mechanism of this plant's profit-sharing plan reveals some interesting data.

In order to avoid supplying competing concerns with information regarding the company's profits, the management does not tell its employees the percentage of profits it pays, but merely assures them that a certain percentage has been fixed and that it will be maintained unless, as has occurred on three occasions, it is increased.

Dividing the amount of profits to be distributed by the actual pay-roll gives the per cent. of dividend on each man's wages which is to be paid to him. To protect themselves against any extraordinary diminution of the actual pay-roll, as well as a protection against a possible unexpected profit, the management limits the dividend to a maximum of 20 per cent.

One year the dividend amounted to 18 per cent. of a man's annual wages. In 1915 it came to but 7 per cent. No one is eligible to share in the profits until he has been employed at least twenty-six months.

The dividend is paid at noon on the last Friday in February. The men are urged to make good use of the money and those wishing to go to the bank to deposit the sum received are allowed to go on the company's time.

In the envelope containing the money is included a printed slip reading as follows and filled out to fit each individual case:

201 Devonshire Street, Boston, Mass.

.....19....,

M.....

The profit-sharing statement for 19.... is as follows:

Total wages of all Profit-sharers . . . . $.....

Total dividend to Profit-sharers . . . . $.....

Dividend is ..... % on wages.

Your wages amounted to $..... and your dividend is $....., which amount please find inclosed.

Yours truly,

Simplex Wire & Cable Co.

In a recent address the president of the company, Mr. Everett Morss, said:

> Our profit-sharing was started not as a charity, but as a business move, and after twelve years' experience we are convinced that it has contributed to our financial welfare as well as to our satisfaction in the conduct of the business.
>
> Our success would seem at least to justify the serious consideration of the idea by other employers.
>
> We believe it should be equally successful in other places, though what are its limitations and what are the peculiarities of our conditions that might cause it to be more successful with us than elsewhere. we hesitate to say.

Think!

"Ideas!" remarked the manager of a large business organization, recently, during the course of an address to his force, "that's what we want from our men. Ideas applied to inert matter have created civilization. You can buy a ton of pig iron for twenty dollars. Inject an idea—convert it into horseshoes—and you've added seventy dollars to its value. Combine it with still more ideas—manufacture cutlery—and you've added one hundred and eighty dollars. Mix in some more ideas—turn it into watch-springs—and you've increased its value nine hundred and eighty dollars.

"An idea regarding 'acid mouth' and a test for the condition occurred to an advertising man who was writing copy for a dentifrice. Probably that idea has been worth one hundred thousand dollars or more to the concern.

"'I wonder if there isn't some way of combining the big-scale production efficiency of the ready-made-clothing manufacturers with the more satisfactory fit of the made-to-order suits?' reflected a young man a few years ago. His idea of a solution of the problem resulted in the establishment of an immense concern which clothes hundreds of thousands of men.

"An idea regarding shipping knocked-down houses, coupled with a few dollars for an ad. inserted some nine years ago, resulted in the present immense business of the Aladdin Company. Over forty houses are shipped from their plant daily.

"'Let's turn out our baking-powder in a case with a handle,' suggested the manager of a concern making this product. The idea made a hit with housewives. The demand for the baking-powder showed a distinct increase.

"Speaking of baking-powders, do you know who originated them? Back in 1852 Dr. Vincent Price was disturbed by the fact that his mother's dyspepsia prevented her eating yeast bread. As a student of pharmacy he was well equipped to seek a substitute for yeast. The result was baking-powder. With this idea and less than three thousand dollars capital, young Price started to manufacture commercially. Less than forty years later he sold the business his idea had created for a million and a half dollars.

"Ideas make the world go round," concluded the speaker. "And no one has cornered the market. Don't be mere routine men. Think! Submit your

ideas to the management. If they're practicable, you'll find the concrete evidence in your pay-envelopes.

"You may have an idea before the whistle blows to-night that will save us one hundred thousand dollars. The late Elbert Hubbard claimed that he once sold an idea, undeveloped and unperfected, for seventy-five thousand dollars cash, and that the purchaser made a good investment.

"We have three thousand men and women on our pay-roll. The combined ideas lying latent in those three thousand brains will serve to establish us as the leading concern in our field in the world. And the bigger we grow, the more we'll all prosper. Think!"

III

POINTERS ON SYSTEM

A File within a File

In most business offices correspondence is now filed alphabetically rather than by the former system of first numerically and then alphabetically.

But one concern has found that even this plan can be improved upon. Often, for instance, a mass of correspondence for a certain customer centered upon a particular job. But the folder contained this and other correspondence from the same customer indiscriminately assembled. To sort it required valuable time, often that of a high-salaried man.

A remedy for this condition was found.

Thin sheets of cardboard the size of a letter-head, perforated with three holes on one side, were supplied to the filing-clerk. Correspondence and data relating to a specific order were then securely fastened together by the use of fasteners which passed through similar perforations in the documents.

This plan put a little more work on the shoulders of the filing-clerk, but saved the time of every one else in the office. A simple device, but one worth while.

Furthermore, it is applicable to a great many lines of business.

For the Office Employee

"The index tabs on our filing system were constantly becoming soiled and bent," said a filing-clerk. "How to prevent this condition was the problem which confronted me. Finally I tried the experiment of brushing a thin coat of shellac over them as soon as they were installed. It stiffened the tab; kept the lettering from becoming undecipherable; tripled the life of the tab."

"Often in the course of my work I have to make many carbons of the same letter or document," said a stenographer. "I found that the insertion of a strip of celluloid between the last sheet and the platen resulted in much cleaner copies. It made the final copy of a series of six as clear as though it were the second or third copy under ordinary conditions."

The Filing System—How Perforations Enable One to Instantly Locate a Misplaced Card

"Mr. Coburn!" The peppery general manager's voice disclosed irritation.

"Yes, sir," replied the office manager. "What is it now?" he reflected, as he approached the chief executive's desk.

"What in Heaven's name is wrong with our filing system?" demanded Palmer. "For the third time this week I've failed to find a customer's card in its proper place. The first time it required two days' work for the filing-clerk to discover it; the second time was nearly as bad. And now here's another case. I can't find Grantley's card."

"Well, Mr. Palmer, mistakes will occur," said Coburn, propitiatingly. "And I've never heard of a system of locating a lost card without going through the entire assortment."

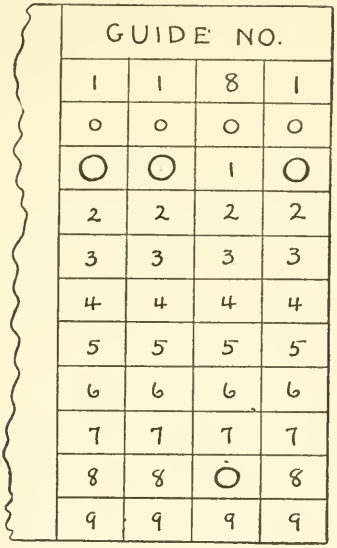
"Find a system, Mr. Coburn," ordered Palmer, peremptorily. "If you can't find one, invent one."

And as Palmer's 'phone rang, Coburn retreated in discomfiture, happy to be spared a resumption of the discussion.

Consultations with various filing experts finally unearthed a system which Coburn promptly installed.

Here it is described: an adaptation of the Bertillon system. The principle is simple in the extreme: merely that of perforating cards, belonging in the same subdivision, similarly. In case of a card's being misplaced, by holding groups of cards to the light and peering through the perforations the presence of a misfiled card is promptly disclosed by the fact that one of the holes presents an opaque obstruction.

Each card in Coburn's filing-cabinet is now equipped with a space at the right edge which appears as follows:



Each guide in the system is allotted a number which applies to all cards covered by that guide. Let us assume that the guide reproduced

be numbered 1181. Then a customer named Walters would be filed under that guide. The card would then be punched as indicated, 1181, to agree with all the cards contained under the guide 1181.

The merit of this plan is obvious. If a card is misplaced, instead of laboriously inspecting each one in the cabinet, the offending card is promptly detected merely by holding the cards covered by each guide number to the light. If no obstruction appears, there

are twenty-five or thirty cards accounted for as O. K. When the vision is obstructed, there lies the missing card. It means merely wholesale inspection rather than retail. And the saving in time and bother is well worth the moment or two consumed in punching a new card to correspond with those filed in its particular section.

Filing Facts

"Much sarcasm has been indulged in at the expense of filing systems," said an office manager, "and much of it is deserved. For example: Smith sneaks furtively into Brown's office and remarks:

"'I'm carrying some valuable documents which I wish to hide. What can you suggest?'

"'Put 'em in my files,' replies Brown. '*Nobody* ever finds anything there.'

"One mistake often made is to seek to apply similar systems to utterly different lines of business. There are, of course, four radically different plans to follow: the alphabetical, numerical, geographical, and by subject. And which is the best depends upon a business's filing demands.

"For the average business of moderate size, the alphabetical is, in my opinion, the best system. For a concern with a wide and fairly uniform distribution through salesmen, agents, etc., the geographical is a good system.

"If the volume of correspondence becomes too great to be adequately handled by either the alphabetical

or the geographical method, one is forced to adopt the numerical. The numerical is, properly speaking, not a different method from the two mentioned. It merely consists of an index-card file, arranged either geographically or alphabetically, which, in turn, refers to the actual file, which is arranged numerically. Each card in the index file is arbitrarily numbered to correspond with a file in the filing system.

"Critics of this system object to the additional motion involved. But, personally, I believe that it saves time and errors where a vast correspondence is conducted.

"The fourth plan named, filing by subjects, applies to a purchasing department or some similar need.

"No one except the filing-clerk should place matter in the files. Centralization of responsibility is absolutely necessary. She should be equipped with a sorter, a miniature file, in which the day's correspondence is segregated, and from this portable file she can distribute the matter without taking unnecessary steps."

"My Partner, the Tickler"

"I'd like a dime for every foot-pound of human energy which is wasted daily in the effort to remember items which should have been committed to paper," said a successful executive. "Actually I believe that the incapacity for clear, straight thinking about which so many complaints are made is largely due to the distracting strain to which many men subject their memories.

"A note-book for your pocket and a tickler for your desk, these act as supplementary brains to the man who avails himself of them, and, used to their fullest extent, go far toward increasing efficiency.

"More and more is the budget system for monetary expenditure being applied in business houses; the budget system for time expenditure is no less important. The tickler suggests this plan.

"Sit down at your desk January first and plan your year. A dozen items will probably serve as guides. Enter them in your tickler. Then plan your month. Here you find the memory-burdening details beginning to crop up. Enter them also. Then plan your week. The convenient tickler takes care of the separate items and your mind is free to grapple with broad questions of policy instead of being hampered by the thousand and one petty details which keep the unsystematic mind in a constantly distraught condition.

"Furthermore, the budget system for time means that subjects will receive their shares of an executive's time in proportion to their importance. Too many executives devote a week to analyses of paint for the plant and a day to the investigation of new developments in profit-sharing or bonus systems of payment. In case of accident or sudden illness, the tickler enables your lieutenants to cope with the problems which center upon your desk.

"The tickler saves strain and brain fag, saves errors and omissions, saves time and tempers. Every executive should have one as his understudy."

Apply the Aquaphone Test to Your Organization

An instrument called an aquaphone has been perfected which is sufficiently sensitive to register the leaking of water, even though the leak be located many feet from the listener. It is used by water-company inspectors. Equipped with an aquaphone, they halt outside a residence at night and can tell whether or not the householder has left the water running in the kitchen to avoid danger of his pipes freezing. And when it comes to wasting the community's water, no man's house is his castle. The clairvoyant aquaphone brings the offender to the bar of justice.

If a man could invent an aquaphone which would detect the manifold leaks which sap the vitality of every business, he could name his own price. Hundreds and even thousands of dollars are thrown into the waste-baskets of many large concerns annually. Lacking an aquaphone, the next best thing is a system which will prevent unnecessary waste.

The auditor of one large concern concluded that the bills for office supplies were out of all reason. Without warning the office force, he began to investigate the contents of the waste-baskets. His findings were illuminating. Scores of erasers which cost the company from two cents to ten cents were thrown away partially used. Pencils, originally seven inches in length, were discarded after being reduced to four or five inches. Clips, costing one dollar per thousand, were used by the office-boys for ammunition quite as liberally as though they were preparing for a Spring drive

on the enemy's trenches. Expensive rubber bands provided the propelling force.

Carbon paper, which costs from one and a half to two cents a sheet and which should yield ten or a dozen clear, sharp impressions, was flung away after going through the machine two or three times. All this was disclosed by an analysis of the waste-basket contents.

Bulletins were immediately posted giving the results of the auditor's investigation. Department heads were called up on the carpet. A system of storekeeping was installed whereby no clerk could obtain erasers, pencils, or carbon paper without displaying the remnants of that he had last received. Metal pencil-holders were supplied which permitted the use of pencils down to the last two inches.

The records of the first month of the new régime demonstrated that the annual saving in erasers amounted to $170; in pencils, $300; in carbon papers, $270; in clips, $75.

Against this total of $815 was charged the few moments a day which the clerk appointed as storekeeper devoted to this phase of his duties. This totaled but $50 a year; net saving, $765.

Another large corporation learned that it was expending nearly five hundred dollars merely for the envelopes used for inter-department communications. A very simple device cut this cost to seventy dollars. It was to use an envelope printed with six horizontal lines across its face. By drawing a line through the last superscription and addressing the envelope on the line beneath, each envelope was good for six trips.

An Error-proof Receiving System

"Carelessness in the receiving department costs many stores a great deal," remarked the auditor of a large retail concern. "If the receiving-clerk is supplied with an itemized duplicate order covering an expected shipment, the chances are that now and then he'll check as received, items which never arrived. To assume that the other man is right when that assumption will save you trouble is human nature. There are people who never count their change.

"The very simple plan which we use to avoid this danger is the system known as a blind tally. We supply the receiving department with a duplicate of the order lacking prices and quantities.

"The clerk fills in the quantities from his records, and then in another department his entries are compared with the original order.

"Another method which is merely a modification of that we use is to demand of the receiving department a complete, itemized record of all goods received. It seems to me, however, that our plan expedites matters without involving any of the risk attached to the usual system of supplying the receiving-clerk with full details of expected arrivals."

A Simple System Covering Shipments Returned for Credit

"We've got to install some sort of system to take care of goods returned for credit," exclaimed the gen-

eral manager of a large wholesale house, addressing the office manager.

"Under our present plan of merely having the shipping-clerk pencil a memorandum of goods which arrive, shipments often are accepted which we've refused to receive and goods are sometimes credited twice to the same purchaser. I wish you'd evolve some plan," he concluded.

"Here's what we need," said the office manager a day or two later, and he presented two blanks for inspection. One read as follows:

Date.....

To the Receiving Dept.

We expect goods returned for credit from

M.....

.....

.....Credit Dep't

As follows

The other consisted merely of a credit memo. blank to be filled in and mailed to the customer.

"Now then," continued the office manager, "when goods are expected, we'll deliver a slip covering them to the receiving department. Upon receipt of the goods, the shipper will make out a credit memo. in duplicate, enter the delivery upon his stock records, and O. K. the duplicate. He will then send both original and duplicate to the bookkeeper, the original will be mailed to the customer, proper entry made on the ledger, and the duplicate filed.

"In case of goods arriving for which the shipper has no notification slip from the credit department, the proper procedure will be to have him refer the truckman to the credit department; the credit-man will then issue the notification slip to the truckman if the case so warrants, and the credit will then be handled as in the other instance. This plan sounds practicable to me. It ought to work." And it did.

How Henry Brooks Gained a $10 Raise in Pay

"Mr. Cordley," said Henry Brooks, whose function in the wholesale house by which he was employed was to check all orders transcribed by the typists to the printed house-order blanks, "I've been figuring out the time lost by our typists through the location of my desk. They make about twenty-five trips daily from the back of the office; multiply that by eight girls and you have two hundred trips, or a total of twenty thousand feet, or about three miles. Move

my desk and 'phone back to the rear where a step or two will place the orders on my desk, and there's a saving of just so much lost motion."

"A good idea," agreed the office manager, after a few moments' reflection. "'Phone the telephone company to send up a man to shift your instrument."

It was two days later. As business slackened at about five o'clock, Henry appeared at Cordley's desk.

"How does this suggestion impress you, Mr. Cordley? I have been noticing lately that the incoming mail includes a great many letters which contain questions requiring the attention of several of our departments."

"Yes," admitted the office manager.

"Under our present system, these letters are marked for each department, and upon receiving one the department manager dictates a separate reply. This means that often five or six letters are written in reply to one communication. Now here's a plan that will obviate that extra time and expense. Why not have a slip printed to be attached to each incoming letter of this type? Leave a space on the slip for each department to pencil a brief of its reply. Then concentrate the answers into one department. This will mean that one man can write one letter covering every question raised. It will save time in dictation and in copying, also money in stamps and stationery."

"It sounds like a good idea," admitted Cordley. "We'll try it and see if any defects develop. Frankly,

I think of no objections at present. . . . We're glad to see you taking so much interest in the business, Brooks," he added. "That's the spirit that pushes a man up into higher-salaried jobs."

The Case of Melton, the Man Who Lacked Originality

"Yes, Judson is a good man," admitted the young proprietor of a jobbing-house, "and he had more original ideas than any man I've ever employed. But I'm letting him go. He has received an offer at a higher salary and I'm paying him all I can afford to. A man with genuinely original ideas is a tremendous asset to the community. But, measured in terms of value to his employer, I prefer an able adapter. A live, enterprising adapter profits by the discoveries and innovations of all the original minds in the country. The original man, as a rule, depends only upon his own necessarily limited achievements.

"I once had the opportunity to study the methods of a man whom I shall always consider the ablest business man of my acquaintance; ablest in the sense of filling his niche more capably than any man I've ever seen. And he was utterly lacking in originality. An interesting type; we used to call him the human cash-register. I'll tell you about him.

"At the time I knew Melton he was between thirty-five and forty years of age, married, and held the position of operating manager of a chain of five fairly sizable department stores. Two were the largest stores in cities of over a half-million population. Melton

had worked his way up from a twelve-dollar-a-week behind-the-counter job.

"Never have I seen a man more utterly concentrated upon one object—the complete mastery of his business. He never indulged in recreation of any sort; never unbent; never allowed himself a hobby; every hour not spent in eating or sleeping was devoted to business. Personally he was the strangest individual I have ever met. He seemed to have none of the characteristics of a normal human being. He had not a friend in the world, nor an enemy. He was a mere machine for the acquisition and application of profitable information.

"On trains, street-cars, and in his home Melton was always studying business or trade magazines, reading books dealing with various aspects of his business or volumes concerning the manufacture and marketing of the vast range of merchandise which he handled. It was not money that Melton was so interested in; it was a sort of fanatical ambition to become the greatest authority in the country upon the subject to which his time was devoted—the profitable operation of a department store.

"As Melton read he clipped, and as he clipped he filed. Every few evenings he would then review his files with the idea of refreshing his memory. The result of all this was that shortly after the application of a new idea to department-store operation anywhere in the world, Melton heard of it and, if practicable, promptly installed the new method in his chain of stores. He subscribed to the service of two clipping bureaus and received many new ideas from this source.

In a word, he cashed in on the combined originality of the human race. Isn't it obvious that this type of mind is more valuable to its employer than the original mind which evolves a good new idea perhaps once a month?

"But listen to the sequel of Melton's story. Some years after leaving my position as advertising manager of one of the stores of the organization with which Melton was connected, I met, in a distant city, Conklin, the general manager of one of the chain of stores.

"'How's Melton?' I inquired, 'the man you dubbed the human cash-register?'

"'Melton?' he repeated. 'Do you know, that's the strangest case I've ever witnessed. He's developed a real human personality. A year or two after you left us Melton broke down. The doctor couldn't diagnose his case satisfactorily; said it was very baffling. The patient couldn't read a printed page and absorb its meaning; seemed to be a case of a mental and nervous collapse. The doctor, an acquaintance of mine, discussed the case with me frankly. I suggested that it might be a case of nature's revenge for the abnormality of Melton's mental attitude and manner of life. Said that it wasn't reasonable to suppose that any human being was here for the sole purpose of running a chain of department stores. His mind should embrace other interests—a harmless hobby, perhaps; occasional recreation; some development of the warm, human side of life.

"'Well, the doctor talked to him along these lines. Melton himself did a whole lot of thinking during

those months in the sick-room. The result was that when he finally tottered into the office again he seemed an entirely different individual. He may be less of a business man than previously, but certainly he's more of a man.

"Outside business hours you see him at the theater, down at the club, out on the golf-links. And actually he has made a lot of friends. Yes, doubtless there's a limit to the extent we can concentrate upon one object. The case of Melton proves it."

Scientific Management and Its Results

"Scientific management is really but one more step in the movement toward division of labor which began in the days of the cave-man," said an authority upon the subject. "By concentrating the thought and preliminary adjustments of a job in the planning department, the worker is enabled to devote his entire attention to just one object, the fulfilment of the instructions given him. The one best method of accomplishing every task has been determined by previous experiments. This knowledge is transmitted to the operator, with a consequent increase in his output and earnings.

"The planning department performs every job in imagination before it enters the shop; the shop executives see that its conceptions are executed in tangible materials.

"The planning department conducts experiments designed to indicate the shortest time practicable re-

quired to perform each operation, both hand and machine, and records its conclusions.

"When an order is received, the planning department proceeds to analyze it thoroughly; visualizes every motion required to fill it; issues complete instructions regarding all operations involved; routes each part and follows up all work in process. These are but a few of its many functions.

"Before the advent of scientific management, each individual operator was expected, in a great degree, to plan his own work. This resulted in lost motion and inefficiency. The advantage of concentrating this function in one department is obvious. It means more output with less labor; more money for both men and management; more products for less money for the community."

Standardizing

"Not all products can be standardized," said a business man, "but scores which are now manufactured in a multitude of sizes, styles, and models could be standardized to the benefit of all concerned. The present chaotic condition of many industries means an economic waste for which every one eventually pays.

"As an instance of what can be accomplished by a little co-operative effort, take the case of the wagon manufacturers. Under the leadership of the secretary of their national organization, they got together a couple of years ago and proceeded to reduce the number of sizes of wagon wheels from forty-one to five. This saved money for three parties: the manufacturer,

the man from whom he bought his raw material, and the final purchaser.

"Similar opportunities for effecting vast savings exist in many industries. But the competitive spirit is too strong to permit of the application of such ideas."

Packing Economies

"Four factors must be considered in packing goods for shipment," said a manufacturer: "cost of container, protection it affords, rate it commands, and time required to pack with it.

"At one time we used old barrels for shipping our product. They cost twelve cents. Then we tried sacks at ten cents. It did not pay us to have the barrels returned; the sacks were sent back to us.

"As they were good for several trips, their cost finally figured down to three cents. This looked like an improvement, but upon figuring the additional time required to use the sacks, the barrels proved to be more profitable. We returned, therefore, to barrels.

"Finally, an ingenious employee devised a rack for holding the sacks and by its use we could pack just as quickly as with barrels. So we returned to sacks and have used them ever since.

Rules for Receiving-rooms

Here are some pointers regarding incoming merchandise compiled by a big wholesale concern:

Do NOT knock in the heads of barrels. Loosen the top hoops and pry out the head.

Do NOT set a case off in a corner or put it with others where it may be forgotten.

Do NOT try to check two shipments at the same time.

Do NOT destroy cases until you are sure the shipment checks properly.

Do NOT return goods until you have been so authorized by the shipper.

If weights seem to be excessive, insist on having the goods weighed before you take them away from the station.

Accept all goods that are consigned to you and pay the freight. This is the quickest way to obtain a satisfactory adjustment.

Remember the railroads charge you for one hundred pounds, no matter how much less than that amount you have.

When writing about an invoice, remember to state the date and the numbers appearing at the top of the invoice.

Inter-departmental Mail Service Saves Labor

"If every time one wrote a letter he summoned a postman to carry that single letter to its destination, how many postmen would be required to handle the mail of the United States?" said an efficiency expert of a great department store. "It's beyond computation," he continued. "Yet that was exactly the

situation I discovered upon joining this organization. Every time a message was despatched to another department a boy was summoned to carry it.

"The solution was so simple as to be amusing. I laid out a route to be covered hourly by two mail-carriers. They collect the mail from the baskets, assemble it at a central point, reroute it, and deliver it. Thus two messengers accomplish what formerly required the services of scores. Of course, some messages have to be delivered quickly. These are handled by the messenger service. But ninety-five per cent. of the inter-departmental communications are not urgent.

"'Why didn't we ever think of that before?' remarked the management. Which was what the courtiers said when Columbus showed them how to make an egg stand on end."

"An Efficiency Expert Is Merely a Piece of Cheese"

"An efficiency engineer is like a Welsh rabbit—neither Welsh nor rabbit, just a piece of cheese," is a statement accredited to a prominent politician.

Some years ago Harrington Emerson was employed to apply efficiency principles to a great manufacturing plant. He reduced production costs 25 per cent. and increased the men's earnings 10 per cent. The proprietors paid him one hundred and fifty thousand dollars, and figured that they'd made a mighty good investment.

An efficiency expert was consulted by a great New

York life-insurance company. He found a vast force of clerks at work copying "histories." Several thousand notices of changes in policies arrived in the mail daily. This necessitated the copying of a history of each such policy from the ledger which contained it. Each ledger held sixteen hundred histories. While a girl was using a ledger to copy one history, those remaining in that ledger were unavailable.

The efficiency expert transferred the records from the vast tomes to cardboards which were opaque to the eye and transparent to the light. From that time on, to copy a history merely required the placing of the original cardboard in a blue-print machine and exposing the card to a mercury lamp.

The output of the clerical force was tripled and an annual saving of twenty thousand dollars in wages was effected.

These are but two of thousands of similar instances. European industrial plants have for some years past been availing themselves of the services of American efficiency experts. France, Germany, Italy, England, Austria, all these nations recognize their value. But to the politician quoted previously they are still but Welsh rabbits—neither Welsh nor rabbit, just pieces of cheese!

Toward Efficiency

"When I came in here," remarked the efficiency expert who has achieved such amazing results in reducing the operating expense of a great department store,

"my first step was to centralize the messenger service. Instead of having the boys located in squads about the store, I had them assembled at a central point under the direction of a despatcher who sits at a switchboard. Before him is a long board divided into numbered compartments, one for each boy. Suppose a call comes for a messenger. The despatcher sends one, at the same time filling out a slip which has blank spaces for Time Left..... Time Returned ..... Dept. No..... Date..... Messenger's No....., and placing it in the boy's pigeonhole. Upon the latter's return the time consumed is entered and the slip is placed in a numbered box corresponding to the compartment which is assigned him. The accumulated slips at the day's end represent the day's activities.

"At the end of each week, the time consumed per errand is averaged, and three prizes awarded the boys making the best showing. To-day our messenger force numbers over one hundred less than when I assailed the problem, and the service is improved. Several factors have contributed. They are:

1. Decentralizing the sales-book system.
2. Installing an inter-departmental mail system.
3. Centralizing the messenger system.
4. Ascertaining the individual efficiency of each boy and rewarding extra speed by prizes.

"The daily pay-roll of over one hundred boys is an item of importance. A few weeks' study upon my part, coupled with efficiency experience, resulted in this saving."

A $13,000-a-year Idea

"It's seldom that I gain an idea from studying my competitors' methods," remarked a manager who is famed for the high standards of efficiency which prevail in his organization. "More often it is from adopting an idea which is in successful operation in some entirely different line of business that I effect some noteworthy saving. For example:

"Some months ago I read in your column an account of the really amazing results achieved by an efficiency expert in his analysis of a life-insurance company's problems. As I recall it, by substituting for the pages of huge books semi-transparent cards upon which the 'histories' of policy-holders were entered, he was enabled to secure clear, sharp blueprints, thus avoiding the necessity for making countless copies. This reform resulted in the release of many copying-clerks.

"I am a manufacturer and I market my product through mail-order methods. One would hardly conceive that the methods of an insurance company would apply to my business. But reading that article made a deep impression on me.

"'The real crux of that discovery is that duplication beats copying,' I reflected. 'There must be some way of applying that to my enterprise.'

"Finally I saw the way. Now, instead of copying orders by typing or carbon copies, we make one 'master copy' of name, address, date, order number, invoice number, items, amount paid, C. O. D., amount

balance, way to ship, and follow-up data—four orders on each sheet.

"Our boys then duplicate this complete information by machine twenty-five times on separate papers, thus making out invoice, day-book records, shipping label, signature coupon, follow-up address labels, visible index-cards, collection index-card, and several mailing and C. O. D. envelopes.

"This plan is now saving us just thirteen thousand dollars per year. And it is to be credited indirectly to the methods in vogue in that insurance company.

"You never know just where you'll unearth an idea which will save you large sums. They crop up in the most unexpected places. This is because beneath every practical application of a plan lies a principle. And principles apply universally."

Too Much System

"As a rule, there is, to-day, too much system in the big stores and too little in the small ones," said an efficiency expert who specializes on the retail field.

"The big stores' systems are planned to insure accuracy, to supply information, and to prevent peculation. It is on this last point that many stores are over-systematized. A well-nigh endless chain of signatures is required on many slips which deal either with the requisition of merchandise or the actual handling of cash. The idea is that, although one or two men may be crooked, the others are honest, and that, because their signatures are required, this factor

acts as a preventive to any nefarious schemes the crooks may evolve.

"All this is extremely expensive insurance. It impedes the operation of various departments, slows up the entire organization, and devours thousands of dollars' worth of time annually.

"A better plan is to concentrate as much of this authority as is possible in the hands of one man who is known to be thoroughly dependable. Let his signature serve as a final O. K. and have documents of this nature delivered direct to him."

This Executive's Plan for a Proper Distribution of His Time

"It was while talking to my fifteen-year-old boy, who is in his first year in the high school, that I received an idea which has saved me much time," said a busy executive.

"He showed me his weekly-program card, which covered each of the six periods of each school day. In the little squares were entered the subject he studied at the hour designated, and the room in which he was located.

"'Why shouldn't I use that idea?' I reflected, and I proceeded to prepare a similar card for my own use. Instead of dividing the day into six periods, however, I divided it into eight of an hour each.

"When making appointments I consult my card and enter the name and place in the proper square. The chief advantage of this simple device is that I am en-

abled to obtain a bird's-eye view of the entire week and distribute my appointments intelligently; not too many to a day. Previously certain days were so crowded with interviews that I had no time to attend to my mail and executive duties."

"Graphs" and Their Usefulness

"What in the world are those cabalistic insignia?" inquired Morse, the printer, indicating some mysterious-looking charts which lay on the desk of Arnold, the advertising man for Black's department store.

"Those are graphs," was the reply. "Merely a graphic presentation of the various activities of this department. For example: here's a chart which shows by months the number of inches of newspaper space we consume annually. The solid line curve means our store; the dotted line, Hollenbeck's; the dot and dash, Holt & Beebe's, and the red line, Halstead's. One of my assistants draws off the totals every month and transfers them to the chart. By consulting it I can see just how our competitors' expenditures compare with ours: in which months they expand their appropriations, and by consulting the chart for previous years can anticipate and prepare for their seasonal sales events.

"Also I keep graphs covering the advertising expenditures of each of our own departments. The requirements of some departments involve the use of more space than do those of others; more in proportion to their gross volumes of business. Several departments

properly concentrate the bulk of their annual expenditures into a four- or five-month period. Consulting the graphs of previous years helps me to apportion appropriations intelligently."

"A good idea," was Morse's reply, "and one that I shall apply to my own business."

The use of graphs is constantly becoming more universal. Factories find them valuable for tracing tendencies of various phases of the business. Scores of leaks are located by this method. Here are some items covered by the graphs of one plant.

Selling price per ton.

Mill cost plus overhead and selling expense. (Total cost.)

Mill cost.

Overhead expenses.

Selling expense.

Total production—tons.

Total profits per week.

Total profits per cent. of money invested.

It enables the executives to visualize the course of every shifting factor. If a certain curve covering some expense item runs disproportionately high, the graph flashes a danger signal. The item demands a thorough probe. Often a change of management in some department has resulted from a graph disclosure. Maintenance of graphs for a large plant demands the time of but a few low-priced clerks. They are rapidly becoming recognized as indispensable.

IV

FOR THE ACCOUNTANT

Saving Labor in Bookkeeping

"So you want to get into the advertising department," said Gleason, the general manager. "You say you don't think you'd ever develop into a bookkeeper, and even if you could you wouldn't want to."

"That's the idea," replied William Paxton, aged twenty-two. "I have a congenital prejudice against non-constructive labor. Same old grind, day after day. If I stayed with it thirty years I might become like fussy old Peckam, an anemic animalculus who years ago shriveled into the mere semblance of a human being."

"God forbid!" exclaimed Gleason, with a laugh. "Well, stick along for a month or two. We'll have to get some one to take your place on the books. Then you can shift."

Weeks passed and still Paxton saw no hope of succor. "I've got to start something around here," he reflected. "If I could only devise some short-cut method of handling this job, I could devote my spare time to the

advertising department and thus gradually work into a berth there."

It was two weeks later. "Mr. Gleason," said Paxton, "if I could develop a method of doing my work on the books in two days a week, would you be willing to shift me into the advertising department for the balance of my time?"

"Glad to do it," was the executive's response.

"Here's my plan. It will save days of labor weekly. By analyzing our books I learned that we have about four hundred customers to whom we sell much of our product each week. Let us start a separate ledger for them, with dates for each week and the monthly balance rulings already printed. Then let us enter only each week's invoice, with the totals at the month's end. This will save an incredible amount of excess labor. I've thrashed it out with Mr. Peckam and he vouches for the practicability of the scheme."

"Go to it," replied Gleason, "and report to the advertising manager for the balance of your time."

With the new plan in operation, Paxton found that a day a week sufficed for his bookkeeping labors. To-day he is assistant advertising manager, in direct line of succession to the advertising manager's throne.

Tips for Your Traffic Department

"Certain traffic experts earn a livelihood by inspecting their clients' freight records from time to time and

accepting for their services a certain percentage of all they can obtain from the railroads for accidental over-charges," remarked a business man. "This is good evidence of the fact that large sums are lost annually by concerns with loosely organized traffic departments.

"My traffic department saves me a great deal directly in the shape of allowed claims for shortages in both outward and inward shipments, supervision of shipping thus insuring economical classifications, etc. But it is even more valuable in improving my delivery service to my customers.

"The department's duties can be roughly divided as follows: supervision of (*a*) inward-bound freight; (*b*) outward-bound freight.

"When the purchasing agent places an order, he promptly notifies the traffic department as to the probable time of delivery.

"In case of delay in arrival, the traffic-man immediately jogs the railroad's memory. Upon receipt of the notice of the goods' presence in the freight-sheds, an order is filled out authorizing the railroad to surrender the shipment to the bearer, the teamster. This order bears an itemized statement of the articles expected. *Note that the original freight notice is not intrusted to the driver.* It is kept in the office as evidence in case of need. Before the teamster leaves for the freight-house, he reports to the shipping department to pick up any outward-bound freight. Upon arrival of the goods in the receiving-room, they are checked with the expense bill by each department, and this is in turn

compared with the invoice, duplicate of the purchasing agent's order, and freight notice.

"We pay our freight bills weekly—after we have checked the bills. On outward shipments, an itemized notice, covering weights, routing, classification, car number, etc., is made in triplicate. One copy goes to the railroad, another to the customer, and the third remains in our files. In case of claim of shortage by the purchaser, our itemized receipt from the railroad eliminates all danger of controversy. This receipt is never surrendered for tracing purposes. A copy is provided, should need arise.

"A traffic department is non-productive. But because an efficient one saves lawsuits, money, and expedites shipments, it is a good investment for a concern large enough to support one."

Efficiency in Filling and Billing Orders

"Here is our method," said the manager of a large wholesale grocery-house. "Suppose an order arrives from either a salesman or a customer. First, each item is marked with the number of the department from which it will be filled. This clerk also makes a list of the names of the house salesmen who will fill the order.

"The order accompanied by the list is then typed upon a house order form, enough carbons being made to cover each department involved.

"On each of these forms appear name and address of customer, date, and the name of salesman to whom order is credited. These are then distributed to the

proper departments, the original order going to the assembling-room, where it is hung over a collection-bin.

"As the goods arrive from each department they are accompanied by the carbon copy of the order, the latter being placed with the original order. Right there on the spot, the items are called to a bill-clerk, who types the bill and its carbon, including prices. Another clerk then checks this operation, comparing the merchandise with the bill. Note that the billing-clerk works directly from the goods, not from the order.

"The bill with its carbon then passes to the office for extension, where they are extended and footed by calculating-machines. One operator works from the original, another from the carbon. The two results obtained independently must agree.

"Following this, the original is mailed to the customer, the duplicate being filed.

"In former years we had the extensions and totals figured mentally. But we find that machines are a good investment. They save wear and tear on the clerks, are more accurate, and one operator with a machine will do the work of three clerks figuring mentally."

A Penny Saved Is a Penny Earned

"Ignorance of cost is conducive to extravagance," said a cashier whose hobby of keeping down expenses is worth thousands a year to his employers.

"Consequently I am constantly reminding our force

of the exact cost of each individual article they consume.

"When I make up a package of engraved business cards for any of our salesmen, I affix to it a typed slip stating that each card cost just one cent. The adoption of this policy resulted in an annual saving of over one hundred dollars.

"I notified our typists that each sheet of plain paper cost just one-fifth of a cent. This cut our stationery bills several hundred dollars a year.

"I figured out the cost per ten-minute period of power for each electric light in our plant. By posting signs about containing this datum, our bills were reduced substantially.

"Rubber bands, pens, pencils, erasers—all these items I've figured individually; and our staff is thoroughly posted on the cost of each pen, pencil, etc. Equipped with this datum, they instinctively avoid waste. It's human nature. Translate merchandise into money, and the desired result is achieved. They don't require urging. The previous waste of supplies is eliminated. The total annual saving amounts to a goodly sum."

"Mark a Definite Due Date on Your Bills—It Means Quicker Collections," says this Man

"If I loaned you twenty dollars and told you the date that I expected it to be repaid," said a wholesaler, "which would make the deeper impression—for me to say that I wanted the money repaid within

sixty days, or that I expected you to repay it January fifteenth?"

"The latter statement," was the response.

"Exactly. And that's just the way it's worked out in my business. In common with most men, I always sold my product on thirty- or sixty-day terms, as the case might be. Like every one else, I have trouble at times with collections.

"One day it occurred to me that if each bill bore the exact date that payment was due, and that it was plainly understood at the time of the sale that I expected the money on that date, I'd have less trouble with chronic interest-grabbers.

"I immediately adopted the new method of featuring on each bill the date that payment was due. The results were gratifying in the extreme. Collections promptly picked up. Possibly, if every one followed these tactics, the effect would gradually wear off. But in my case the device has proved to be of permanent value. I figure that because of it I get the preference when checks are being drawn. Thirty and sixty days seem rather indefinite periods. January fifteenth looms sharp and clear cut. It makes a dent in the purchaser's consciousness and memory."

A Daily Trial Balance Saves Worry and Labor

"Time and again I've had trouble in obtaining my monthly trial balance," said a bookkeeper. "Upon one occasion I had to work four hours overtime for three nights in order to locate a slight error.

"Finally I developed a simple method of avoiding this danger. Now I take a daily trial balance. As I make entries on my ledger, I insert a marker at the item involved, the end of the marker projecting from the edge of the book.

"After completing my posting, I then go through the day's items, totaling the debits and credits. The amounts when added should, of course, equal the difference between the footings at the opening and closing of the day covered. If an error appears it is a simple matter to nail it on the spot. But by my former method, the error might have occurred anywhere during the month's business, which meant a laborious rechecking of past entries."

New Ideas in Cost-keeping

"The installation of a cost-keeping system will not directly accomplish anything in the way of increasing your profits," said a cost accountant. "It will not increase production or decrease costs. But it will give you information in such form that, intelligently utilized, you can take steps which will increase your profits. In a factory, for example, it will inform you as to the time expenditure upon each operation or each order; it will give you the cost of each unit of your product; it will tell just where and in just what stage of development each unfinished unit is; it will tell what proportion of overhead should be charged to each department's product, figured both by the hour and by the unit; it will do the same in connection with direct labor cost.

It will post you accurately on the proportions of non-productive to productive labor and inform you as to what the former is devoted; it will do the same for materials; it will give you the hourly operating cost on each class of machines and on the various departments. It will show whether each operation is increasing or decreasing in cost, and whether you are making goods at a profit or at a loss; and if you are making some at a profit and others at a loss, it will separate the sheep from the wolves.

"In the past it has been the habit of cost experts to charge the product with the entire expense. This has resulted in fallacious conclusions. For one reason or another many plants are, at certain times, partially idle. But rent, insurance, taxes, and depreciation keep right on. Now the total of these expenses charged against the product may very well seem to indicate that its manufacture is unprofitable. As a matter of fact, it may be highly profitable when the product is debited with only its actual and legitimate costs.

"This method of cost-keeping results in condemning a product as unprofitable when the real fault lies in the management. Often the addition of other lines to utilize idle machinery or space will result in placing the business on a profitable basis.

"I know of one concern, now employing a factory force of twenty-three hundred, whose business was originally highly seasonal. Its product was bought by the consumer principally at Christmas and New-Year's. This meant that a large factory was utilized to its fullest capacity only during the summer and

autumn. The necessity for timeliness in the models and lines handled rendered it unsafe to manufacture over six months in advance of the demand. The product had to bear the heavy expense of insurance, taxes, interest on the investment, etc., during the first six months of the year, when the output was small. Certain staple lines were then added which resulted in keeping the plant filled with business the year round, and promptly the records showed the real profit on the original lines; far in excess, needless to say, of that previously figured."

A Series of Collection Letters

"My idea of the proper note to strike in a series of collection letters is absolute firmness without a trace of bullying," said a credit-man. "If the debtor is shifty and inclined to be a beat, a firm attitude convinces him that he must pay or face the consequences; and if he is an honest man, pressed for money, the absence of a bullying tone will tend to hold him as a future customer and make him resolve to square up as soon as possible. Waving the big stick, on the other hand, arouses resentment and often delays payments.

"It is well to start with the polite assumption that the item has been overlooked; then gradually to increase the pressure. Here is a series which I have found effectual. The first letter reads:

We note that our account against you of $32.60 has escaped your attention. As our terms were clearly explained to you at

the time this account was opened and the time limit then agreed upon has now expired, we would greatly appreciate it if you would promptly mail us a check for the amount due.

"This letter always brings a considerable number into the fold, the reason being that it reaches many customers who are merely careless and who are only too glad to be reminded of their delinquency. Failing of the desired effect, a second letter reading as follows is despatched:

On the 8th we wrote you about your overdue account of $32.60, which was, even at that time, past due. It was with the explicit understanding that your account would be settled monthly that we extended you credit. We have received no reply to our last letter and we must now insist that payment in full be made promptly.

"Many perfectly good risks fail to respond even to this second letter, so that we do not consider it wise to resort to threat of suit in the third letter, which is phrased thus:

You have received two letters from us asking for payment for your account of $32.60, but you have failed to reply. Our rule regarding monthly settlements, which was explained to you at the time the account was opened, is inflexible.

We feel that, under the circumstances, we can no longer extend you credit, and, therefore, must notify you that until you meet this obligation you must pay cash for any purchases. If, however, you will promptly remit, we shall we glad to offer you your former credit privileges.

"In the above letter a real reason is advanced as to why it is to the debtor's interest to pay. This letter always brings a better response than letter Number two.

"A collector then calls upon the man, unless he is located at a point too remote to render this practicable, and, failing of action, a final letter threatening suit is mailed. This epistle is worded as follows:

You have received three letters from us regarding your overdue account of $32.60. Also our collector has called upon you, with no result. We are forced to the conclusion that you are trying to evade payment and must, therefore, serve notice upon you that unless payment in full, or at least part payment, is made before the 5th, we shall immediately place the claim in our attorney's hands without further notice.

"This is our final effort, and unless the debtor pays he finds himself involved in litigation with all its unpleasant corollaries."

What a Traffic-man Discovered

"The worst feature connected with loss occasioned by ignorance of freight rates and classifications is the fact that it is almost always a steady drain on the business, extending sometimes over a period of many years," said a traffic-man.

"Take this concern, for example. When I joined them I found that ever since they had been in business they had been shipping their product, coffee, as 'Bags roasted coffee,' under a third-class rate.

"The bags were of burlap, lined with waterproof paper, and when so designated the shipment commanded a fourth-class rating.

"I wonder how many thousands of dollars are lost

daily through similar lack of expert knowledge of traffic rates and classifications?"

Trade Acceptances—a Forward Step

"What are trade acceptances?" said a credit-man in response to the interviewer's question. "Merely a written promise to pay upon a certain specified date for goods received. Their general adoption by the business men of this country means a decided forward step in our methods of conducting commercial transactions. To be more specific, they will, according to the Cleveland Association of Credit-men, result in the following advantages:

1. They are more liquid than book accounts.
2. Their use will make it impossible for the purchaser of goods, after acceptance of a draft, to take an unauthorized and unearned discount.
3. With the buyer's obligation in the form of an acceptance, circulating perhaps in several markets, he could not well return goods, which is done sometimes under the open account before it is due.
4. Trade acceptances would seek the market where the lowest rates prevail, thus placing the small buyer's paper on an equal footing with that of the large buyer.
5. It would put an end to the bad business practice of assigning open accounts.
6. It would make the purchaser of merchandise more careful in his buying.

7. It would accord with the desire of the Federal Reserve Board and conform to the spirit of the Federal Reserve Act.

8. It would place the transaction covered by an acceptance on a sound business basis for the buyer, the seller, and the banker.

9. The tendency would be for obligations to be met promptly.

10. The credit facilities of many firms would be greater than under our present system.

11. Under this system foreign countries have built up sound financial structures, one of the effects of which has been to strengthen their prestige in the markets of the world. We should do the same.

12. In time of stringency banks will discriminate in favor of self-liquidating trade acceptances as against paper not eligible for rediscount, and possibly against single-name paper.

"Naturally, trade acceptances can be discounted at a much lower rate than ordinary open accounts. As two-name paper, it is doubly protected. Furthermore, banks can loan freely upon this security without violating the law. They can loan but ten per cent. of their capital and surplus to any one firm on single-name paper.

"This ruling does not apply to two-name paper.

"The method of obtaining a trade acceptance is simplicity itself. It means merely that with the invoice the seller forwards a blank reading as follows:

No..... DETROIT, MICH.....19...

..... After date pay to

..... or order

.....Dollars $.....

(To be filled in by Acceptor)

At.....

The obligation of the acceptor of this bill arises out of the purchase of goods from the drawer.

..... (Drawee)

..... (Drawer)

"Across the face of the draft the customer or acceptor stamps or writes as follows:

Accepted

(date).....19..

(Acceptor).....

"In a word, trade acceptances make for precision in business transactions; save money for the seller, and hence indirectly, in prices quoted, for the buyer, tend to minimize danger of disputes and litigation; loosen up credit, which means that a dollar will earn more money for more people and, in general, increase the efficiency of their users."

A Short Cut in Accounting

"A certain amount of red tape is necessary to insure accuracy in accounting," said a bookkeeper, recently, "but it should be reduced to a minimum.

"Here is a method which reduces labor on the innumerable petty-purchase accounts which accumulate monthly, many of which represent dealings with concerns who may never require another entry.

"First, open an account in the ledger entitled Petty Purchase Account. When an invoice comes through which is too small or infrequent in character to warrant the opening of an account in the ledger, enter it in the regular purchase journal, but in a column distinct from that containing items to be posted to the ledger. Stamp or mark the invoice in some way to distinguish it from the usual type.

"When payment is due, write name of recipient of check in check-register and designate this item by the initials P. P. Keep these items segregated as they pass from the check-register to the general cash-book, just as in the case of the purchase journal. This will prevent their passage to the ledger in the course of the regular routine.

"At the month's wind-up, total the P. P. column in the purchase journal and post it on the credit side of the petty-purchase account. Total the same column in the general cash-book and transfer to the debit side of the same account.

"This plan preserves all the essential data in easily accessible form and results in the elimination of the

considerable labor involved in handling a large number of insignificant entries."

Card Ledgers—Time- and Labor-savers

"I'll have to ask you to wait a few minutes, Mr. Condon," said Miller, assistant bookkeeper of the Stewart Company. "The ledger containing your account is in use. Mr. Claflin, another customer, asked to have his account made up only a few minutes ago."

"I can't wait," was the impatient response. "You can mail it to-night," and Condon was gone.

"That's the second time that's occurred this week," reflected Miller. "I wonder if there isn't some method of avoiding the difficulty? I'll have to do a little reading on the subject in my spare moments. Perhaps a practicable suggestion will get the raise I've been looking for."

"Mr. Reed, if I could install a system here that would save twenty-five per cent. of the labor involved in our accounting department, would it interest you?" Miller was addressing the general manager some days later.

"Of course it would. What's your idea?"

"Merely to substitute a card system," was the reply. "I've been investigating the subject and find that there's no comparison between the two methods. We have about seven thousand accounts kept in seventeen ledgers. Fifteen drawers will accommodate a card system. We can arrange them either alphabetically or geographically, though I'd recommend the latter plan. This will help the sales manager in ana-

lyzing returns and conditions in certain districts. Here are a few of the advantages:

"At present we clerks are often hampered in our work by the head bookkeeper's needing the ledger upon which we're at work. A card system obviates that difficulty. Furthermore, with cards our system would be much more flexible; no dead material would accumulate, as it does in our books. In case of a hurry-up job on certain accounts, the work could be split up among several clerks if we used cards. With books this is impossible." And for some minutes Miller continued to demonstrate the advantages of the new plan.

"Miller, it's worth a trial," said Reed, finally. "And I'll assign you the task of working out all the details and superintending the transfer. Make a thorough study of all the systems in use and select the one best adapted to our purpose."

Within two weeks the new plan was in operation and so much time was saved that several of the clerks were taken from the department and shifted to the warehouse, where a demand for clerical labor existed. The net saving in salaries amounted to a substantial weekly sum. And the following Saturday Miller found that his envelope contained twenty-five dollars instead of the usual fifteen.

"That's all right, Miller," replied Reed, as the young clerk thanked him. "You've saved the house a good deal more than ten dollars a week. Keep your eyes open for further improvements. You'll find that we appreciate your interest."

V

TOWARD EFFICIENCY

A Chairless Office Conserves this Man's Time

"A very simple plan has enabled me to save an average of a half-hour a day," said the advertising manager of a department store.

"Because of the nature of my work I have to grant interviews to a good many advertising solicitors. This consumes much time.

"Now, in my opinion, five minutes is ample time in which to state a proposition. But the average salesman or solicitor will sink into a chair and plan on talking for a half-hour. I used to keep a chair beside my desk for the use of callers. One day, after an eloquent solicitor had consumed nearly an hour of my time, I concluded that I would adopt radical measures.

"I excluded all but two chairs from my office. I now have one for myself and one for my stenographer. When a caller enters I arise and tactfully steer him over to the tall bookkeeper's desk upon which I lay out my dummies. We lean on that support and I listen to his story.

"I find that, lacking a chair, the solicitors are con-

tent to state their errand and leave. The mere fact that they are standing rather than sitting seems to suggest a short interview.

"Chairs are responsible for a great deal of wasted time. My estimate that their abolition in my office saves me a half-hour daily is conservative."

"Don't Lock Up Your Desk," is a Rule of this Office

"We have one rule here which we expect to be inflexibly observed," remarked the office manager to the new telephone-order clerk, "and it applies from the president down.

"In your desk is one drawer for personal effects. Never put any documents relating to our business into it. Keep it locked, if you prefer, but never lock the other drawers. Before this rule was enacted, much trouble arose from absences due to illness. Often drawers containing matter requiring immediate attention would be found locked up. The key was at the employee's home. It meant bother and expense due to the necessity of breaking open the desk. Hence the need of leaving your desk unlocked when you leave in the evening."

Saving Time in Figuring Postage on Parcel Post

The following table, published in *Office Efficiency*, a house organ of The Art Metal Construction Company, of Jamestown, New York, should save time in the mailing department:

In this table you use as a basis the number of pounds in each case.

To find postage on a package to 1st or 2d zone simply add to the number of pounds 4 cents.

3d zone, multiply number of pounds by 2 and add 4 cents.

4th zone, multiply by 4 and add 3 cents.

5th, multiply by 6 and add 2 cents.

6th, multiply by 8 and add 1 cent.

7th, multiply by 10 and add 1 cent.

8th, multiply by 12.

Reducing Freight Charges

"If I had the money which is wasted annually in this country through excess freight charges arising from ignorance and carelessness in packing, I'd retire on my income," said a manufacturer, recently.

"Goods which could well be shipped in boxes or barrels are packed in crates, which pushes them into a higher classification; products which could go in crates often are shipped in sacks, with the same result.

"I knew one heavy shipper who used to use anything which was convenient for a container. One day he forwarded a shipment of the same material packed by three different methods—sacks, boxes, and barrels. Happening to study his freight bill closely, he learned that he had been charged first-class rates for his boxes, third-class for his sacks, and fifth-class for his barrels. This opened his eyes; he proceeded to make a study of his shipping problem, with the result that the product of his plant is now shipped in the one best and cheapest form.

"As a general rule, the more substantial the con-

tainer, the lower or less expensive the classification. This is to penalize the man whose methods of packing are likely to result in damages against the railroad. But it does not always apply. So weird are some of the rulings that, in shipping a desk across the country, I discovered that to put several pounds of cobblestones in the drawers brought the shipment into a weight classification which saved several dollars in freight charges.

"Very slight modifications in the style of packing often effect substantial savings. Wooden tops on barrels instead of cloth tops shift most commodities at least one class. On some non-perishable products shipped in barrels the absence of a top does not carry a penalty. Goods shipped knocked down invariably command a lower rate than those set up.

"For years a certain manufacturer of shafting shipped his product with couplers, pulleys, and hangers attached. It was charged at first-class rates. A new shipper reduced his classification to fourth-class merely by shipping these goods non-assembled.

"The rulings issued by the railroads are admittedly intricate and difficult to grasp. But a patient study of them brings its reward in the shape of worth-while savings. And I don't know of any easier method of saving money than to reduce your shipping charges by ascertaining the one best and cheapest method of packing."

The Tendency of the Times

"It is a question whether the American public has yet fully realized the extent of the vast economic

changes which have been effected in our national life during the past generation," remarked a prominent business man, recently. "The scale upon which business is done has so increased that a business man of the old school could not hope to cope with modern conditions.

"For one thing, in the lines of business which have been concentrated into great units, and which are owned by thousands of stockholders, personal contact between employer and employee has disappeared. The entire responsibility for a great corporation's administration devolves upon the body of men known as the management. The vast majority of the stockholders have utterly no knowledge as to the conduct of the business. They invest their money, draw their dividends, if fortunate, and let it go at that. No one knows as to just what extent an industry can be expanded to attain the maximum of efficiency. If split up into small competing units, the vast waste attendant upon duplication of plants, sales organizations, and similar necessary factors renders them uneconomical from the viewpoint of the community. If, on the other hand, a business, through crushing or purchasing competitors, becomes too large, it becomes unwieldy and hence is wastefully administered. There is no question but that the Morgan interests, for instance, had at the time of J. P. Morgan's death become too large for efficient administration. The Roman Empire, to go back some distance, was another instance of an enterprise which became too large to longer function.

"With the expansion of modern business has come

specialization as a natural corollary. The small business cannot afford to keep many specialists upon its pay-roll; the large one finds it a good investment.

"In looking over a prospectus issued by a commercial correspondence school, recently, I was interested to note the plan of subdivision followed in analyzing modern business. It ran somewhat as follows:

1. *Production*
   - *a.* Organization.
   - *b.* Management.

2. *Marketing*
   - *a.* Salesmanship.
   - *b.* Advertising.
   - *c.* Correspondence.
   - *d.* Credits.
   - *e.* Traffic.

3. *Accounting*
   - *a.* Auditing.
   - *b.* Cost Finding.

4. *Finance*
   - *a.* Banking Principles and Practice.
   - *b.* Foreign Exchange.
   - *c.* Investment and Speculation.
   - *d.* Insurance.
   - *e.* Real Estate.

5. *Commercial Law*

"The extent to which specialization has been carried in these various departments of business is amazing. And the end is not yet. Take the single item of advertising, for example. Twenty-five years ago the advertising-man was merely a space broker—a sort of retailer of space which he purchased at wholesale. To-day he must combine within his organization a complete knowledge of the various channels of distri-

bution, a grasp of copy and layout, an understanding of sales management, a knowledge of media and their rates, of trade-marks and trade-mark law—in short, the ability to plan and execute a campaign complete in every detail for the successful marketing of any product which may be presented for his opinion. Naturally, it has been found profitable to specialize. One man, located in New York, is recognized as an authority upon media and their circulations. Other members of the profession consult him on this feature of a projected campaign. Other advertising-men are mail-order specialists. Others concentrate upon sales letters and mailing campaigns. Still others are technical advertisers and handle only machinery and other products designed for use in manufacturing plants. An entirely separate branch of the profession is that of department-store advertising.

"Similarly, among wage-earners you find the same tendency. Factory workers now perform but a single operation in the manufacture of the plant's product.

"All this, I suppose, makes for community efficiency. But does it make for individual human efficiency? In the long run, won't we pay a price for this generation's amazing productive power? Doesn't the mental vitality of the people as a whole suffer from this narrowing specialization? Doesn't it stifle initiative, resourcefulness, and tend to discourage versatility? Well, it's a great age. We're plunging ahead at a terrific speed toward some unseen goal. There have been more fundamental and far-reaching changes in my lifetime than in the ten generations that preceded it.

I'd like just a squint at the world in nineteen seventy-five."

The Value of Business Reading

"In hiring men for positions of responsibility," said an executive of a large corporation, "one of the points upon which I demand information is the extent of the applicant's reading along business lines. The response goes far in assigning the man a rating in my estimation. Lack of time is a reason often proffered to excuse ignorance of the contemporaneous literature of one's chosen field of endeavor. A man should *make* time to read in this direction. Clip a few minutes daily from your perusal of the sporting page and devote this period to solid business reading, and the result will soon show in your pay-envelope."

"A year or two ago I met a man who, at that time, ranked as the best salesman in his organization. He represented a publishing-concern which operates two well-known magazines and which also issues many books. Among its hundreds of salesmen, covering every state in the Union, remember, this man, by the actual evidence of tangible results, stood first.

"'How do you explain your success?' I inquired. 'Are you a natural salesman?'

"'Do I look like one?' he asked, with a laugh. 'Wouldn't you pick me out of a crowd as a bookkeeper, drug-clerk, or representative of some equally inactive vocation?'

"'Yes, I would,' I admitted. As a matter of fact,

he was a lean, bespectacled, academic-looking individual, without a spark of that magnetism and superabundant vitality which is supposed to accompany phenomenal sales talent.

"'No, I'm not a natural salesman,' he continued. 'I'll tell you about my experience.

"'About eight years ago I concluded to emerge from behind the counter and to take a whirl at selling. I started out from St. Louis with a line of merchandise. I hadn't been out over two weeks when it was borne in on me that I couldn't sell silver dollars for nickels. A more pathetic imitation of a salesman never unpacked a grip.

"'One evening, in the lobby of a hotel in a little Kansas town, I ran into an old school friend. It developed that he was a real salesman. He asked me how things were going and I told the truth—that I was a flat failure and was about to take the morning train to St. Louis and start rustling another behind-the-counter job.

"'My friend suggested that I stick it out a week longer, and said that, ridiculous as it might sound, he had learned to sell goods from a book. He produced it from his grip and presented it to me. It dealt with the theory and practice of salesmanship and gave many actual examples of right and wrong methods.

"'That night I sat up till the small hours perusing the volume. I began to pluck up courage; I saw that my attack had been of the hit-or-miss type, poorly planned. Next day I started out with renewed nerve

and actually closed a sale which showed me over thirty dollars' commission. That evening I once more read the book. The following day I moved on to another town and once more I made a good sale.

"'That was the beginning of my career as a salesman. It's by applying the principles that I gained from a few hours' reading that I've attained the position I now occupy.'

"That's just one case of the value of a little reading along business lines," continued the executive.

"The other day I was talking to the sales manager of a corporation which has netted forty thousand dollars in the past two years from applying an idea suggested by the sales manager. He got the conception from an article in a business magazine.

"The point is right here. In the course of, say, a year's actual experience, you soak in a certain amount of information. But your information is limited to your own experience. By a systematic course of reading, however, you profit by the experience of scores of business men. In other words, you can gain a vast fund of experience vicariously. It's the one sure and certain get-rich-quick scheme. For in the bitter competitive struggle for existence, certainly the man equipped with the greater fund of knowledge has an advantage over his less-well-informed adversaries. By reading one gets wise quick, hence it logically follows that he stands a better opportunity to get rich quick. What is a salaried man paid for? Knowledge, principally. Increase your knowledge and you increase

the contents of your pay-envelope; that's simple, isn't it?

"Not long ago the expansion of our business forced us to erect a new building. We engaged a competent architect; got in touch with an insurance expert and a combustion engineer and thought that we were all primed to go ahead. At this juncture a new man in our organization requested a hearing.

"'Gentlemen, you've got the wrong idea,' he informed us. 'The latest method of erecting an industrial structure demands the consultation of efficiency experts. You people are going ahead hit-or-miss. After you've built a rectangular structure, you'll then proceed to arrange your departments as economically as possible within the limits of that constant factor, the building.

"'The proper method is to plan the relation of the departments first; then to erect a building which will contain them. Get in touch with the Blank organization. They operate by constructing miniature models. When they've completed an analysis of your problem, you can then call in your architect, combustion engineer, insurance man, etc.'

"We followed this man's instructions, with the result that our new building will not in any degree resemble our original plan. And to say that a saving of seventy-five thousand dollars annually will be effected is no overstatement.

"It was from an article in a business magazine that the man who saved us this sum derived his information."

"Don't Carry Your Coals to Newcastle," says this Successful Young Executive

"Ability is purely relative," said the successful young sales manager of a staid old New York wholesale house. "And it's to my realization of that fact that I date my success.

"I think that it's in one of Rider Haggard's novels that an Englishman among the natives of Africa built a reputation as a medicine-man because he foretold an eclipse of the sun. Relatively, you see, he was a wizard.

"Selfridge scored a great success by establishing an American department store in London. Among the conservative Englishmen he shone as a veritable pioneer of progress. Another case of relativity.

"A few years ago a certain bank officer accepted a position as president of a conservative old wholesale house. The reforms which he instituted, reforms the need of which were obvious to any live business man of the present generation, resulted in the saving of hundreds of thousands annually. His salary is one hundred thousand dollars a year. Does he earn it? Yes and no. Principally no. He has been worth that sum in the particular position which he fills. But the point is that no room for such sweeping reforms should have existed. Dry rot had set in and the house was moving forward upon the impetus gained from years of former prosperity. Any ten-thousand-dollar-a-year man could have achieved equal results. But in relation to his business environment, the banker was a real Napoleon.

Hence his present salary. Columns of adulatory literature have been written regarding his achievements. It was from reading about this case that I awoke to a realizing sense of the truth of this theory of the relativity of ability.

"I had been bucking the business battle for about ten years. I started as stock-boy in a live young wholesale dry-goods house. After a year or two of this apprenticeship I became inside salesman; later I was given an outside territory. At twenty-six I found myself assistant sales manager, with the advertising and correspondence considered as being particularly my province.

"By nature I am strong on the constructive or business *getting* end of commercial life, but weak on the conservation end. Therefore I made a deliberate study of this feature. I read deeply on the findings and methods of efficiency experts, and finally took a course in scientific management. This involved methods of payment as well as actual waste elimination. My ideas, when applied, resulted in substantial savings; but although, if I may say so, I was a competent business man, I was surrounded by a corps of live wires. Our house was reputed to be the most enterprising in the trade. No particular individual shone by contrast.

"Then came my conclusion to tie up with some old house of the type which the banker had discovered. I had not far to seek. The concern I'm now connected with was established back in the fifties. For the past thirty years it has been losing ground. Not actually, you understand (its volume of business has gradually

increased), but in comparison with its competitors. All its executives were men of from fifty-five to seventy-five years of age, and the house was suffering from in-breeding. We hear a lot nowadays about promotion from the ranks. But this can be overdone. Outside blood is occasionally necessary. Conceive a big wholesale house to-day which never runs a line of advertising copy in its trade media. That's the condition I found here. No mailing campaigns were conducted. No samples were ever distributed. No measures were used for obtaining business excepting the maintenance of an inadequate sales force.

"And the waste and lost motion in handling and displaying goods due to archaic fixtures and a policy of *laissez-faire* resulted in the loss of large sums annually. Even the credit department was feebly administered. But so great is the power of good-will and prestige that the volume of sales far surpassed that yet attained by the house with which I got my training.

"Well, to make a long story short, I succeeded in jimmying an entrance here. I took a subordinate position at a small salary. Then I began to make the fur fly. At first I was confronted with a great deal of opposition. But as reform after reform showed tangible results in dollars and cents, I was given a freer hand.

"In one department alone, that of traffic and routing of freight, an expert whom I engaged recovered ten times his fee from overcharges. I installed and developed a mail-order department. We issued a

catalogue. We began to support our traveling-men with aggressive mailing campaigns. Liberal use of trade media in launching trade-marked specialties brought good results. Younger salesmen were employed; the superannuated relics I found here, pensioned.

"Analysis of our territory displayed amazing inconsistencies in the demand for various products. Study of the records indicated unsuspected reasons for this condition, and suggested methods of bolstering the sales of stickers. Graphs are now used extensively throughout the establishment. The old-timers at first regarded them suspiciously as newfangled tomfoolery. But they soon learned to interpret them.

"In a word, I merely applied here the methods in vogue in the concern with which I was previously connected. And because, backed by the prestige of this old house, the results have staggered the proprietors, it was not long before I was appointed sales manager at a salary running well into five figures annually—over twice what I received in my former position.

"Here I shine as the last word in modern efficiency. Just a case of relativity, you see. Too many able men are buried because they've carried their coals to Newcastle; I carried mine to Greenland."

Foresight—Its Value in Launching New Enterprises

"I was a comparatively young man when I learned from harsh experience the value of analysis as applied to the field for a new product," said a business man.

"I was approached by the inventor of a rope-measuring machine with the purpose of inducing me to supply a portion of the necessary capital. A mechanical engineer who at my request passed upon the merit of practicability reported that it was a remarkable invention—feasible, practicable, thoroughly perfected. I then advanced ten thousand dollars for a substantial interest. Upon placing our machine upon the market, we discovered that although eagerly purchased by the concerns to whom it was useful, the number of these was so small that there was no hope of establishing a sound, profitable business. In other words, the market was too limited to warrant the expense of manufacture. Every one concerned in the affair lost money. Intelligent analysis would have enabled me to avoid making this mistake.

"Thousands of similar instances could be cited. Only a few weeks ago the inventor of an automatic device for registering the thickness or, technically, the weight, of wrapping-paper showed me his machine in operation.

"'That ought to be bringing in a comfortable income,' I remarked.

"He laughed.

"'It's merely an interesting toy,' was the reply. 'There's no real demand for it. Any good paper salesman can tell the weight of paper through pinching it between his thumb and forefinger. This has been on the market for several years now. I've received barely enough to meet my expenses in perfecting it.'

"The nature of many a new enterprise involves a

certain unavoidable element of risk. But in many cases unnecessary risks are taken. For example, one would say offhand that many thousands of dollars must be ventured in establishing a new magazine. But an acquaintance of mine had one securely founded before risking more than a few dollars. His method was simple. He saw an opportunity for launching a new trade medium; the field was unoccupied; it seemed like a dead certainty that a potential demand existed.

"Instead, however, of publishing an initial issue, he issued a prospectus outlining his plan in detail and mailed it, accompanied by a letter containing a special introductory reduced-price subscription offer to a list of logical prospects. He promptly received several thousand responses with remittance inclosed. Thus he had a solid subscription list guaranteed before he purchased a pound of paper or set a line of type. Furthermore, with the backing of this subscription list he was enabled to secure a great deal of advertising for his first issue. 'Be sure you're right, then go ahead,' is the policy by which he operates.

"This man appropriated this idea from the method pursued by a big publisher of technical books. Whenever an idea for a new volume occurs to this publisher, he sends out several thousand letters to selected lists, soliciting orders for it. When the money arrives, he promptly returns it with the explanation that the book has been delayed in the press. If the percentage of returns indicates that the volume will sell readily, he then goes ahead with

its preparation. But if the evidence is adverse, he merely abandons the plan.

"All of us are gifted with hindsight. It's the man with that rare quality, foresight, who succeeds. And foresight is merely a synonym for common sense."

How One Man Secured a Promotion

"Often a man will find himself caught in an eddy of the promotion stream," remarked the advertising manager of a great department store, "and it seems as though it were well-nigh impossible to extricate himself. Millions of men are marking time to-day, waiting for the man above them to be promoted or to leave. And, in most cases, they seem to feel that there is nothing to be done about it.

"I believe in shaping circumstances rather than in permitting circumstances to shape me. Every man is more or less the victim of events; even Napoleon finally fell. But that does not prevent me from putting my shoulder to the wheel of fate and trying to do my part in speeding up its revolutions.

"Some years ago I found myself side-tracked. I was employed as assistant to the advertising manager of a medium-sized store. Because I lacked the title of 'manager,' it was difficult for me to secure another job which would be any better than the one I held. My normal line of advancement, therefore, was to step into my superior's shoes when he left. But that's where the rub came. Packard, my boss, was a very able man, but he lacked self-confidence. He was well

equipped to hold a bigger job, but did not realize it. Consequently he was content to remain where he was at three thousand dollars a year.

"This, naturally, blocked my progress. If I left, it would be only to take another job as 'assistant.' I wanted the prestige accruing from Packard's position; then I myself could be on the lookout for a better opening.

"After studying the situation from all angles, I concluded that it was up to me to get Packard into a bigger job; that would clear the track for me.

"As we were the best of friends, my task seemed far from impossible. I began to quietly push my superior into the limelight. Naturally a retiring sort of fellow, I saw to it that he was called upon for speeches at the local ad. club's meetings.

"Then I began to clip his ads. and send them in to the trade papers for reproduction and comment. They created a most favorable impression, and finally I got him to write some articles for the big advertising organs.

"Some months after I had begun my efforts in Packard's behalf I got wind of an opening in a neighboring city. It was a big job, one which would pay twice or three times the salary my superior was receiving. I knew that I could not secure it for myself, but I felt that Packard stood a mighty good show to land it.

"I began pulling wires. Among other measures, I induced a friend of mine, who was acquainted with the management, to write a letter suggesting my superior as the logical man for the job.

"A few days later Packard was amazed to receive an offer at a big advance over the salary he was then getting. He accepted it and I, in turn, found myself holding down his desk. Packard has never learned that I was responsible for his advancement. Since then I have pursued similar tactics once or twice with equally successful results."

$150,000 for Information

"Inertia and conceit, those are the two qualities which limit the progress of most business men," said an efficiency expert. "The first is closely allied to sheer mental laziness; the second arises from contrasting their present condition with that of some former period.

"There are a lot of bush-leaguers in the world of business who are all swelled up over small successes. If they'd compare their performance with the major-league players, they'd take a tumble and, perhaps, be able eventually to qualify for the big league.

"'What can any outsider tell *me* about running *my* business?' is their indignant reply to the suggestion that they permit an expert to overhaul their methods.

"When you tell this type of egoist that Harrington Emerson received one hundred and fifty thousand dollars yearly merely for overhauling and applying his principles to one plant, with the result that production costs were reduced twenty-five per cent. and the men's earnings increased ten per cent., he opens his eyes.

"Now in this case Emerson was an 'outsider.' He

sold and delivered nothing but brains. And the purchaser made a very profitable investment. He did not permit conceit to stand in his way. The conceited man would laugh at the idea of paying any one one hundred and fifty thousand dollars for telling him how to run his business, and, in the mean time, his competitor may avail himself of expert service, cut his costs, and undersell him. No one knows it all.

"It's the man who avails himself of the community's composite brain—in other words, who secures experts to stimulate various departments of his business—who will increase his production and lower his costs."

What Analysis Has Done for Modern Business

"Every man makes mistakes," said a successful executive, the other day, "but it's the man who doesn't make the same mistake twice who wins. Most men keep on making the same mistake all their lives.

"It seems to me that, of all departments of commercial progress, greater strides have been made in this direction, the elimination of mistake repetition, in the past ten or fifteen years, than in any other. Searching analysis applied to all branches of business is rapidly elevating commerce to the plane of an exact science.

"Talk to an efficiency expert, for example. He'll tell you of thousands of mistakes, negative mistakes, which have been made daily for a generation or more in great manufacturing plants. Analysis has disclosed these mistakes, with the result that in many cases

output has increased one hundred per cent. with a fifty per cent. reduction of the pay-roll.

"For a century mistakes have been made in the conversion of fuel into steam. Tests covering scores of plants have demonstrated that, out of every three tons of coal burned under the boilers of this country's manufacturing plants, one was wasted.

"Many factors contributed to this result. Incomplete combustion, too much air, too thick or too thin a fuel bed, the wrong kind of coal—all these faults existed and no one thought of remedying them. To-day a steam engineer can step into your plant and by a thorough analysis, combined with exhaustive tests, cut your fuel bill, perhaps, twenty or thirty per cent., with no reduction of steam production. Another case of a mistake which should not be repeated:

"Suppose you have a new food product which you wish to introduce by a sampling campaign. Which is the best method, to merely distribute your samples from door to door; to follow this plan, but to combine it with a sales talk to the housewife; or to distribute your samples through the grocers? Analysis has proved that where the first method will result in the sale of one package of your product, the second will sell three and the third will sell ten packages. So there's a mistake which it is no longer necessary to make.

"For years plants operated without cost systems. Consequently, in submitting bids for contracts the same mistakes were made year after year. An efficient cost system, which is merely an analysis of your

expenses enabling you to apportion them correctly, eliminates the danger of bidding too high or too low.

"Advertising, a field in which nearly a billion dollars is spent annually in this country, offers another example of the value of analysis. Formerly 'ads.,' booklets, sales letters, and other advertising literature were prepared and published with the hope that the plan and copy were the best for the purpose. Now in campaigns of any magnitude perhaps a dozen 'ads.' or letters, as the case may be, are prepared, tested on small units, and the results carefully tabulated and analyzed. Then the one best 'ad.' or letter is applied on a national scale. Another case of avoiding mistakes.

"Fifty years ago business men guessed; we know. They succeeded in spite of constant repetition of the same mistake. We don't make the same mistake more than once. And if we're willing to learn by the other man's experience, we don't make it once."

Getting the Right Attitude

"My experience has convinced me that there is not so much difference between people's brains as the difference in salaries would indicate," said a business man. "But there is a tremendous difference in people's attitudes toward their work.

"As a rule, those who develop a genuine interest in their jobs make good; those who don't, fail—that's my conclusion.

"Thousands of men are genuinely interested in baseball, prize-fights, politics, lodge activities, and the

movies. But when it comes to getting right down to their jobs and seeking to evolve better and more efficient methods of handling them, they're not there. They walk through the day's work in an automatic fashion, as though hypnotized.

"As a matter of fact, a real interest in almost any kind of work can be developed. But a certain amount of will power and application is required before one drills deeply enough into the subject to tap the reservoir of unforced and spontaneous interest.

"Here is an actual instance to show just what I mean. At one time I was appointed advertising manager for a correspondence school which taught illustrating and cartooning. The course consisted of twenty lessons.

"After sizing up the situation, I concluded that sales would be greatly stimulated if we would include a money-back guarantee:

Your Money Back Without Question,
If, After Completing 10 Lessons,
You Feel Dissatisfied.

"That was the offer I advocated. 'But we'll be swamped with demands,' protested the president. 'We can't afford to make such an offer.'

"'Note that I insist upon their completing ten lessons,' I replied. 'By that time the pupils will feel so pleased with their progress that they'll be glad to finish the course. After the eighth or ninth lesson the danger-point will have been passed. It's in the early stages that they feel discouraged.'

"My idea was adopted and proved to be a complete

success. Only two requests for a return of the tuition fee were ever received. By the tenth lesson, just as I anticipated, a genuine interest was awakened.

"Of course, illustrating is inherently a more interesting subject than many kinds of work, hence I am not justified in claiming that this instance applies to all cases. But you see the principle I'm seeking to emphasize.

'Too many men are time-servers and clock-watchers. They look upon the day's work as a boy looks upon school—an involuntary imprisonment. You can't blame the boy, but the man should have a different attitude. And he can attain one.

"I have seen the addition of one new member to a big office force completely change the atmosphere of the entire establishment. In this case, a young fellow who did considerable reading along lines of business joined the organization. He began to install some reforms, suggested the payment of the typists on a piece-work basis, etc. Soon others began to emulate him, and within a few months a listless group of time-servers was converted into an enthusiastic force of workers, constantly on the watch for new and improved methods. Even the office-boy, who had previously consumed about half an hour morning and night carrying heavy ledgers and files into and out of the big vault, awakened to the inefficiency of that method and demanded the installation of a little cart to lighten his labors and speed up his work. This little device cut down the time required for that particular task seventy-five per cent.

"An able manager should, like a good teacher, inspire his subordinates with a real interest in their work. But competent executives are scarce. It is up to each man to develop his own capacities. If he can but once grasp the right attitude, what was previously drudgery becomes transformed into pleasure. His days seem too short to accomplish all that he wishes. He grows and expands. And eventually the difference becomes apparent in his pay-envelope."

Heat, Ventilation, and Efficiency

"In winter," said the superintendent of a manufacturing plant, "the heating and ventilation problem looms large. It is only of late years that efficiency experts have realized the close connection between these factors and volume of production.

"Just as a reduction in working-hours has, to the management's surprise, often resulted in a greater output, so the installation of an expensive heating and ventilating equipment, for purely humanitarian motives, almost always proved to be a splendid investment.

"Man's efficiency is just as dependent upon a copious supply of pure air of the right temperature as it is upon his having a sufficient amount of nourishing food.

"An overheated shop means enervation and listlessness; an underheated one means restricted output because of the stiffening, paralyzing effect of cold.

"And equally important as the temperature item is that of the percentage of humidity. Too much

humidity is one of the most binding brakes upon a satisfactory volume of output.

"Each building presents an individual problem to be solved only by a competent specialist. But, in general, it has been found desirable to have the warmed incoming air discharge at a considerable height from the floor and distance from the walls. The stream is then directed toward the walls; as it cools it descends and finds an exit in vents located in the walls near the floor. I am referring now to a combined heating and ventilating system in which blowers are used to distribute air from outside.

"Then there are, of course, blower systems which merely rehandle and reheat the inside air, and, finally, the simple direct radiation from steam-coils plan. Tests have indicated that, from the viewpoint of coal consumption, the latter is the most expensive.

"Steam-heating by means of exhaust steam is extremely economical. There is practically no difference between the heating value of live and exhaust steam. The engine's efficiency is slightly reduced, to be sure, because of a hardly perceptible back pressure. But the saving in fuel far counterbalances this drawback.

"The main point is to have the one best system, no matter what the cost. For the proper conditions react promptly upon the operatives' efficiency. I know of one case where the volume was increased thirty per cent. as a direct result of substituting a good system for one which was totally inadequate. Against this gain the cost of the system and its upkeep was negligible. In the final analysis, it's your men who

make your money. Give them satisfactory working conditions, and you will reap a rich reward in actual dollars and cents."

Are You Availing Yourself of this Institution's Facilities?

"Two lines of educational work have been inaugurated and strenuously carried out by the Commercial Museum of Philadelphia," said Mr. W. P. Wilson in his recent speech at Washington. "The first, *a foreign-trade bureau,* has arduously labored to convince the manufacturer of the urgent necessity of occupying some of the foreign fields of trade before they were possessed by other countries. This work has been pushed in all parts of the United States and with all lines of manufacturers whose products could find normal sale in any locality abroad. This foreign-trade bureau furnishes the manufacturer with all necessary data on the requirements and opportunities of foreign markets and on tariffs existing in different ports of entry; on trademarks and patent laws, consular relations, shipping routes and rates, and similar information relating to the invoicing and transportation of goods for foreign countries; methods of payment and granting of credits; competition to be met in foreign markets, and names of reliable business houses throughout the world. The bureau has a list of more than three hundred and seventy-five thousand foreign firms, with information regarding their lines of business and importance in the trade. It conducts a free reference library of com-

merce and travel, with over seventy-eight thousand volumes, containing over four hundred foreign and domestic directories, both city and trade; official bulletins of every country publishing them; consular reports from all countries which issue them; seven hundred and fifty of the leading magazines, trade journals, and dailies, of which over one-half are from foreign countries. This library, with its very complete list of foreign documents, is used by a large corps of assistants for the direct benefit of exporting firms, and to give them the needed help they require. This work is done for any manufacturer at actual cost of investigation and compilation.

"The second line of educational work done by the Commercial Museum is for the schools of the city of Philadelphia and the state of Pennsylvania."

Commercial Abbreviations in the Export Trade

Now that many American business men whose operations have been confined to the limits of our own country are beginning to develop markets in other countries it is well that the foreign interpretation of certain commercial abbreviations be well understood.

Many misunderstandings in times past have been due to the fact that buyer and seller have interpreted f.o.b.—f.a.s.—f.o.r.—and c.i.f.—differently. In more than a few cases bitter disputes, with a consequent loss of valuable patronage, have ensued.

Our consul at Rome submits the following explana-

tions of commercial abbreviations as universally interpreted in Italy. As a matter of fact, these apply throughout the export world.

"F.o.b.—free on board—is invariably understood to mean free on board ship at seaport. In Italy it is never understood to mean free on board cars. For instance, f.o.b. New York means that freight from the inland place of manufacture or shipment, insurance (if any) during the railroad transit in the United States, cartage from depot to dock, and loading charges at dock are all paid by the exporter.

"F.a.s.—free alongside (ship)—means that railroad freight and insurance in the United States and all cartage charges to the dock are paid by exporter. The loading charges from dock to ship in this case are paid by the purchaser.

"F.o.r.—free on rail—means loaded on railroad cars at the point quoted; *e. g.*, by f.o.r. Cincinnati, or f.o.r. New York, it is understood that the purchaser buys the goods on the railroad cars at Cincinnati or New York free of all charges.

"C.i.f.—cost (of goods), insurance, freight. By this term it is understood that the exporter sells the goods with all charges paid to the point quoted. For example, a quotation of coal at $12.50 per ton, c.i.f. Naples, would mean that the coal is sold by the exporter at that price on shipboard at Naples, the exporter having paid all charges, including ocean freight and insurance. The Italian buyer would have to pay the cost of unloading from ship, customs duties, and handling charges in Italy."

The Government's Pamphlets on Business

A special agent of the Department of Commerce recently deplored the fact that so few business men availed themselves of the bureau's services.

It is true that many fail to utilize the government's activities in their behalf. Aside from the publication of *Commerce Reports*, the bureau's daily paper, a collection of nearly one hundred and forty special bulletins have been prepared and can be obtained for five or ten cents apiece upon application to the Superintendent of Documents.

These bulletins cover a vast field, applying to both domestic and foreign business, although principally to the latter. They are listed in a catalogue entitled, "List of Publications," issued by the Bureau of Foreign and Domestic Commerce, which can be obtained by application to the Superintendent of Documents at Washington or to the local office of the bureau.

Methods, Not Money, Win Success

"An ounce of brains is worth a pound of money in achieving success," remarked a banker of long experience.

"When a man applies for a loan, I'm a good deal more interested in learning what's in his skull than what's in his pocket-book.

"Money can be lost with startling rapidity; it's seldom that a man loses his intelligence.

"Brain power evolves proper methods, and right

methods make money. What I call brains, business brains, are exhibited when a man enters a highly competitive line and, through the superiority of his methods, wins success.

"Merely that a man has made a few millions doesn't prove the possession of brains. He may have found a gold-mine, or gambled on Wall Street successfully, or bought Ford stock in the early days. But when I see a man open a little retail store, for instance, and, a little later, open another, then gradually add to his stores until he's operating a successful chain, I know that man has business brains. He's growing rich in a field where thousands are losing money; luck cannot enter into a success of that type.

"The man simply has evolved better methods than his competitors'. He has demonstrated that he has brains. That type of man can borrow more here on comparatively small assets than many a man with three times his money—that is, if he wants the money to use in expanding along the lines in which he has demonstrated his ability. If he wants to embark in another field, that is something else again.

"No, money is not the main factor in success. Thousands of corporations representing sizable aggregations of capital are standing just about even from year to year. And I have seen small competitors overtake them and leave them far in the rear merely because of superior man power. Men and methods—there's a combination which has money backed off the boards. Bulk in business is as often a handicap as an asset. Look at the little specialty stores which

are giving the department stores such a run for their money. They represent a comparatively small investment, but they're flourishing like the green bay tree.

"Lines which were never before represented by specialty shops are beginning to appear. New York city is supporting a successful chain of five or six hosiery stores. Wasn't it Fitzsimmons who once remarked, 'The bigger they are, the harder they fall'?

"In a small store the sense of unity of interest between employer and employee is stronger than in the great department store. It is so obvious to the salespeople that the concern's success is dependent upon their efforts that they work with more interest. They feel more responsibility.

"If you, for instance, were one of ten voters instead of one of fifteen million, wouldn't you make up your mind regarding the merits of the candidates after a careful study of the opposing claims rather than voting, as do most of our fifteen million, as a result of the impressions left by various cartoons they may have noted? That's one reason small stores can successfully compete with large ones.

"Let no man tell me that lack of capital is holding him down. If he had capital he'd probably soon lose it. Exceptional ability in business life will generally win its way. Which is a quite different thing from saying that exceptional ability is necessarily of any particular value to the community. In fact, the reverse is sometimes the case."

How the Bureau of Standards Serves the Business Man

"That business is one thing and government another is a view still held by many people," remarked a manufacturer. "But daily we see the two becoming more inextricably combined. The reason is clear.

"By assigning certain tasks and duties to the government the community is spared the economic waste involved in maintaining similar facilities in hundreds of private manufacturing plants.

"A conspicuous example of this is the Bureau of Standards at Washington. This department, manned by scientific and technical experts, is equipped with complex and expensive testing machinery which would be used perhaps only once or twice a year by the average manufacturer. But, as it is accessible to every concern in the country, it is in constant use. Here are a few of the department's activities during the month of June:

"A six-cylinder automobile engine has been installed in the gas-engine-testing laboratory at the bureau, to investigate the merits of materials that are being marketed with the claim that when added in small quantities to gasolene they produce increased efficiency, together with freedom from carbonization.

"Railroad-track scale tests have been conducted in Minnesota by Test Car No. 1, co-operating with the railroad and warehouse commission of that state. During June twenty-nine railroad-track scales

were tested. Test Car No. 2 has been operating in the states of Maryland, West Virginia, and Kentucky and tested thirty-eight railroad-track scales during June.

"A manila rope nine inches in circumference was submitted by the Panama Canal. It was tested in the large Emery machine and failed at a load of 57,800 pounds.

"Miscellaneous testing included rubber and leather goods for the Panama Canal and samples of miscellaneous materials submitted by manufacturers to the general supply committee in competition for government contracts. During June 73 samples were tested. In addition to these, 292 samples of paper were tested, 170 of which were for the Public Printer and 118 for other executive departments.

"A women's novelty store in Washington was given assistance in determining the fiber content of a shipment of women's nets. A New York dealer in spool thread submitted two spools of different makes which were marked 1,200 yards to the spool. Examination showed that one was 20 yards short and the other 72 yards short. This kind of thread is employed in garment-making and in sewing on buttons. If 3 inches of thread are allowed to each button, 72 yards would sew on 864 buttons.

"Special assistance was given to the Office of Indian Affairs in making awards on large quantities of uniform and other cloths. Specifications were prepared for prison clothes for the District Commissioners. Tests were made upon 441 samples of textiles."

Why the Business Man Should Understand Economics

"Too many business men are mere opportunists," said a manufacturer, recently. "They are thoroughly posted on the affairs with which they deal daily, the latest production, accounting, and sales methods, for example; but when it comes to planning for the future they're all at sea because they know little or nothing of practical economics.

"Some months ago I was reading an interesting book entitled, *Gold Supply and Prosperity*, edited by Byron W. Holt.

"Mr. Holt assumes that the production of gold will increase at an average rate of at least five per cent. for the next ten years, and from this premise formulates the following conclusions. Conclusion number six has greatly influenced my policy in shaping the future course of this concern.

(1) That the value of gold will depreciate as the quantity increases, though not, perhaps, at the same ratio.

(2) That this depreciation will be measured by the rise in the average price level.

(3) That rising prices will soon lead again to rising and higher interest rates.

(4) That, because of high interest rates, the prices of bonds and most other long-time obligations drawing *fixed* rates of interest, dividends, or income will again decline to low levels.

(5) That, because of rising prices and high interest rates, the cost of materials and supplies will tend to decrease the net profits of all concerns the prices of whose products or services either cannot be advanced at all or are not free to advance rapidly.

(6) That, because of rising prices, the net profits of all concerns

that own their own sources of materials and supplies will tend to increase.

(7) That, because of rising prices of commodities, the market prices of all tangible property will tend to rise. This includes lands, mines, forests, buildings, and improvements.

(8) That, because of rising prices of commodities and property, the prices of the stocks of corporations holding commodities or property will tend to advance.

(9) That, because of rising prices, and therefore of cost of living, wages must and will tend to advance.

(10) That, because wages and salaries will not rise as much or as fast as will prices and the cost of living, there will be dissatisfaction and unrest among wage and salary earners.

(11) That, because of rising prices and property, there will be much speculation in commodities, stocks, and real estate.

(12) That, because of the great profits that will result from speculation, honest industry will be discouraged and recklessness and extravagance will be encouraged.

(13) That, because rising prices will decrease the purchasing power of debts, and thus aid debtors at the expense of creditors, they will discourage saving and thrift.

(14) That, then, an increasing output of gold means rising prices, rising wages, high interest rates, the scaling of debts, speculation, unjust distribution of earnings and wealth, and general dissatisfaction and discontent."

Overstocking + Poor Accounting + Quality Stock = Failure

"Did you ever stop to think of the economic loss to the community involved in commercial failures?" said a business man. "For the cost ultimately falls upon each one of us just as does the cost of fires. Fires mean higher insurance rates as well as higher prices for building materials.

"Failures must be discounted in the price set for the sale of commodities, consequently we all pay more for goods than we would if no one ever failed.

"Furthermore, a failure means that an organization which cost money to create, and which supposedly served a useful economic purpose, is dissolved. The units comprising the organization often are out of work for some time, hence do not function to their fullest extent of usefulness for a considerable period. Also the concern's good-will is irretrievably lost, and here again the community pays a portion of the price. Good-will costs money. Its possession means that business can be transacted more cheaply than otherwise. Dissolve it into thin air, as a failure does, and an actual, though intangible, asset is lost to the community.

"Many failures are unnecessary. Often a man threatened with bankruptcy could weather his difficulties if he knew just what was wrong with his business. It was a realization of this fact that actuated the Wholesale Men's Furnishings Association of New York to appoint an advisory committee for the purpose of coaching dealers who are in a precarious condition.

"As soon as a retailer begins to show signs of falling into the slow-pay division, a letter is written him suggesting that he talk over his troubles with the committee. With his consent, they then study his books, analyze his problems, and proffer advice. During the first six months of this year thirty-six dealers were investigated, and of that number twenty-eight were

re-established upon a sound basis. In the balance of eight cases the business was wound up. But the significant feature of this record is that the need in the majority of cases was for expert advice.

"An analysis of the various cases demonstrated that the weak spots consisted of:

1. Overstocking.
2. Carrying goods of too high quality.
3. Lack of proper accounting methods.

"Expert advice quickly remedied these three difficulties. This merely supports the conclusions of the commercial agencies that thirty per cent. of all failures are due to incompetency, and twenty-nine per cent. to the same cause disguised under the phrase, 'lack of capital.'

"In my opinion, this plan of the Wholesalers' Association will soon be widely adopted. It is in line with modern ideas; it means elimination of waste and lost motion; in a word—efficiency."

Is Your Business Suffering from Arteriosclerosis?

"In a speech delivered before the Press Club in Washington," remarked a business man, "President Wilson said:

"'There is a simile that was used by a very interesting English writer that has been much in my mind. Like myself, he had often been urged not to try to change so many things.

"'I remember, when I was president of a university, a man said to me, "Good Heavens, man! Why don't

you leave something alone and let it stay the way it is?" And I said: "If you will guarantee to me that it will stay the way it is, I will let it alone; but if you knew anything you would know that if you leave a thing alone it will not stay where it is. It will develop, and will either go in the wrong direction or decay."

"'I reminded him of this thing that the English writer said, that if you want to keep a white post white you cannot let it alone. It will get black. You have to keep doing something to it. In that instance you have got to paint it white frequently in order to keep it white, because there are forces at work that will get the better of you. Not only will it turn black, but the forces of moisture and the other forces of nature will penetrate the white paint and get at the fiber of the wood, and decay will set in, and the next time you try to paint it you will find that there is nothing but punk to paint.'

"This applies just as strongly to the administration of a business as it does to that of a nation.

"Every salesman knows that, as a rule, the most difficult concern to which to sell any time- or labor-saving device or any constructive business service is the conservative old firm which feels securely intrenched behind its record of a generation's success. And these are the concerns which are in greatest danger of disaster.

"This attitude is a symptom of incipient arterio-sclerosis, or hardening of the arteries. The mental arteries of such an organization become so incrusted with a lime-like deposit composed of equal parts of

inertia, complacency, and prejudice that eventually they become utterly impervious to the influx of life-giving, regenerating ideas; vigorous young competitors secure all the new business which develops and gradually annex a good many of their old customers, and finally comes failure, or, at best, liquidation.

"Many a man has been prosperous at fifty and bankrupt at sixty-five. He always has some good reason to advance. Shifting trade currents have left him stranded, or the demand for his product ceased before the substitution of cheaper materials. But the real explanation was mental arteriosclerosis.

"Only the other day I was talking to an old-timer who has desk room in a down-town office-building, and occasionally sells a little belting.

"'A few years ago I was doing a big business,' he related. 'But now there's no business to be done. The advent of motor-driven machinery has destroyed the business. Some of the manufacturers are getting desperate,' he continued. 'They've started advertising!' He picked up a copy of a technical magazine and pointed to a belting ad. 'Look at that!' he exclaimed. 'Isn't that a joke? This man advertises that the leather he uses is carefully selected and that he buys only that from the side of the animal opposite to that upon which it habitually lies. He claims that they lie on one side only. I happen to know who is responsible for that wasted money. It's a young college fellow who inherited his father's business. The old gentleman would turn in his grave if he knew how the son was making ducks and drakes of his money. Advertising

may pay in some lines of business. It's a sheer waste of money to spend it on pushing belting.'

"'A typical case of arteriosclerosis,' I reflected. 'He thinks that the loss of his business is due entirely to a change in power transmission methods and he's convinced advertising represents money thrown away. I'm just interested enough to see what the figures prove regarding the belting business.'

"Reference to government reports demonstrated that in 1904, at the time the old man was doing a big business, the value of the belting butts tanned in the United States totaled $10,647,078.

"In 1914 the amount came to $12,876,554, or over twenty per cent. more than ten years previous."

Job Analysis in Modern Industrial Plants

"Before I assumed charge of this department," said the employment manager of a large corporation, in the course of an interview with the writer, "I made a careful study and analysis of every job in the plant. This was to enable me to describe to applicants the nature of the work in which they would be engaged, and also to equip me with knowledge which would enable me to make transfers intelligently in case employees turned out to be unfitted for the particular jobs to which they were assigned. But these are but two of many instances of the value of job analysis. As Doctor Metcalf says in his report on Vocational Guidance:

Thorough job analysis includes a careful study of every kind of occupation, both within the industry itself and in relation to the

life of the employee outside of his occupation. In this way the total result of work analysis gives a complete view of the whole man. The significance and service of job analysis are being rapidly appreciated. Job analysis is carried on for varying reasons in different firms. In some places it is carried on in order to arrive at satisfactory wage schedules, initial and progressive. In several companies many work positions have been carefully analyzed and classified. The job duties have been briefly but fully defined, and a range of wage or salary prescribed with reference to definite periods of time. In the case of the more important positions, only minimum and maximum rates are prescribed. From time to time those schedules are revised to meet changing conditions of the work and of the labor-market. Such procedure aids in measuring productivity and gives a basis for rewarding workers. Outside experts are often employed to help in this work of job analysis.

Job analysis is also of great service in the problem of original selection. When the employment bureau, which is responsible for selection, has complete data regarding requirements for the different jobs, these facts naturally direct those of the employment bureau responsible for selection to look for the required qualifications in the applicants. Job analysis is made under the direction of the employment department, to enable the employment manager and educational directors to select employees more certainly, and to develop and protect them when placed.

In one firm, where it took a workman from one to three years to become proficient in a certain job, it was found, as a result of job analysis, just why it took so long. It was pointed out by an educational expert how the period of preparation could be so guided that the operator could become proficient in a much shorter time than was then being required at the job. The job was one in which mechanical skill constituted about three-fourths and non-technical skill about one-fourth. Such analyses are of very great value. They point out to the employer just what preliminary training is necessary for different kinds of work, and he is then in a position to co-operate with educational agencies to have the operator trained in the shortest time possible.

Job analysis helps to discover and determine lines of promotion.

It enables a concern to know the possibilities of work alternation or transfer, and thus prepare the way for utilizing in one department laborers who may not fit well in another department. It is also of the greatest service in getting data and outlines for training courses—that is, it is of first importance in educational work.

In one large manufacturing establishment, where they had begun job analysis in the different departments, the following data were taken from the cards covering the analysis of the power-house work, so as to reveal the logical sequence of promotion therein:

a. Coal-handler.
b. Ashman.
c. Stoker.
d. Boiler-cleaner.
e. Water-tender.
f. Wiper.
g. Oiler.
h. Water-operator.
i. Steam and air operator.
j. Switchboard-operator.
k. Second engineer.
l. First engineer.

The helpful, constructive results gained from job analysis may be summarized as follows:

a. It is a great help in initially selecting employees.

b. It gives necessary data for outlining to the beginners the possibilities of advancement and indicates when wage increases may be expected, and what the anticipated maximum salary may become.

c. It is of great assistance in transferring those not adapted to one kind of work to work that they can do best.

d. It forces business to open up channels for promotion. It almost always enables a firm to get help from within. Rarely is it necessary to go outside for skilled workmen. When requisitions come for better men, the positions are filled by moving others up. This means in each transfer really filling two positions; one, the higher vacancy, and the other, the position from which

the promoted man is taken. By this process the outside market is relied upon for filling only the low-grade positions in each case.

e. It helps standardize wage and salary schedules, and thus is a vital factor in regularizing work. It stabilizes the work force.

f. It is the best method for discovering the educational values of the work contents of the different jobs.

g. It aids in the discovery of occupational dangers. Such detailed attention to jobs cannot help but reveal occupational health hazards, accidents, diseases, and all conditions harmful to health.

h. It is a great aid in the wise and just handling of grievances. Scientific job analysis is one of the best means for *preventing* grievances. Many of the disputes in industrial plants arise over injustice in wages, promotions, transfers, qualifications for particular jobs, etc. The only way to settle a dispute scientifically is to know the facts absolutely. Job analysis will fortify a company with more scientific data essential to the proper settlement of disputes than almost anything else. Job analysis, thus conceived, is a vital part of a scientifically constituted labor bureau, in that it serves as a clearing-house of information useful to all. It furnishes the foundation for trustworthy advice and sound guidance."

How a Bank Can Help a Young Business Man

"As it happens," said a young business man, "I have plenty of capital for my business and I never need to borrow. Despite this I do occasionally obtain a small loan. You'd be surprised if you knew my motive.

"When I apply for a loan it generally leads to a discussion of my business and its problems. The vice-president of my bank is a man for whose judgment I have the greatest respect. I doubt if he realizes how much I have learned from my talks with him or how many of his tips I've followed.

"I marvel at the young men who overlook this opportunity to obtain free advice. Every time you consult a lawyer it costs you anywhere from five to five thousand dollars, depending upon the man and the subject of conversation. The lawyer has spent years in securing his knowledge and very justly charges you for it.

"Many bankers possess a vast fund of knowledge which is just as valuable as the lawyer's, and in most cases it's yours for the asking.

"The very nature of a banker's duties means that he is constantly analyzing the problems connected with hundreds of establishments. This gives him a broad grasp of practical economics and results in the acquirement of knowledge which can be applied to almost any business.

"One New York banker was recently hired by a big firm of wholesale grocers at a salary of one hundred thousand dollars a year. Any time I can profit by the experience of a one-hundred-thousand-dollar-a-year man, free of charge, I figure that I'm just so much ahead of the game.

"My advice to young men is to stand well with your banker. Keep on deposit a sum equal to twenty per cent. of your loans; don't invest your loans in permanent assets, and clear up all indebtedness at least once a year. Then you'll find the banker's door-mat bearing the sign 'Welcome,' and if you're fortunate enough to be dealing with the type of banker to which I refer, the shrewd, keen, analytical type, who through long experience has developed a sixth sense for de-

tecting danger signals, you'll find that his advice is one of the best business assets on your books."

"Most Concerns Are Overstocked," says this Business Man

"I wonder how many billions of dollars are tied up in superfluous stocks of merchandise in this country," remarked the proprietor of a wholesale paper-house.

"Consider the whole vast field of business: manufacturers, jobbers, agents, and retailers; figure that most of them are carrying twice the quantity of stock that they need, and you're staggered at the thought of the total annual interest charge represented. This condition is due to haphazard order-placing and a lack of analysis.

"Take my own case, for example. About two years ago I found myself hampered by lack of capital. I went to my banker to apply for a loan.

"He studied my statement closely. 'You say you want to borrow!' he exclaimed. 'Why, Leonard, you ought to be in a position to lend! Your trouble is too much money, not too little. Like every paper-man I've ever known, you're heavily overstocked. I'll wager you've never analyzed your orders to arrive at a standard of proper stock-keeping. And, furthermore, I'll bet that you've paper in your warehouse which has been there for over two years.

"'Before I lend you a dollar I want you to set your clerk to analyzing a typical month's business. Ascertain exactly what the demand is for. Reduce the result to a percentage basis. Then see how nearly your in-

ventory agrees with your findings. You'll find that you're carrying vast quantities for which you seldom receive an order, and that you're low on lines for which the demand is frequent.

"'You have at least twice as much money as you need tied up in stock. I know what I'm talking about because I once acted as receiver for a bankrupt paper concern. It will take you some time to get your stock into proper shape. But once you reduce it to a proper level, you'll find yourself with capital to invest in real estate, bonds, or whatever looks good to you. You'll find that you save storage rental and waste from depreciation, as well as interest on your investment.

"'It's far better to buy a few items from your overstocked competitors occasionally at a price which leaves you no profit than to stagger along as you're now doing under an incubus of superfluous merchandise.'

"To make a long story short, I was appalled at the result of my analysis. Plainly there was little relation between the actual demand and my supply as shown by an inventory. Thereafter a chart of the ideal stock was checked weekly against my actual stock. It required nearly a year to effect an agreement between the two.

"When this was attained my investment was reduced over thirty-five thousand dollars. Six per cent. on thirty-five thousand dollars is twenty-one hundred dollars. And this was not all that I saved. Rent, depreciation, labor, cartage, all these expense items were reduced, and I didn't lose a dollar's worth of sales."

Centralization—the Modern Tendency in Business

"The economies resulting from centralization are gradually becoming realized," remarked a manufacturer, recently. "And it's surprising to note how varied are the conditions to which the principle applies.

"Take the idea of scientific management. This involves, among other factors, the centralization of the thought to be expended upon a job into one department, the planning division.

"Modern employment policies are based upon the same idea. Instead of having each foreman hire his own help, as in the old days, now the more progressive concerns have an employment department which does the hiring for the entire plant. Invariably this has reduced the labor turnover, with the resulting economies.

"Look at our oil-circulation system for a concrete example of this idea of centralization." The speaker pointed to a small pump. "That pump distributes oil to every machine on this floor. The fluid passes through horizontal pipes which run beneath the machines, and is forced upward through vertical pipes to the point of application, the cutting edge of the tool. After serving its function, the oil drains into little reservoirs and thence into a drain-pipe which parallels the horizontal distributing-pipe and, after filtration, is elevated to a tank suspended from the ceiling and once more begins its circulation through the plant. This plan saves the time of my men and saves oil. It typifies the economies consequent upon centralization.

"Many people complain of the steady increase of the centralization of authority at Washington. The 'states rights' men affect to see in this evolution a menace to our liberties. My own idea is that you cannot stop this tendency even if it were not desirable. Centralization means efficiency. And efficiency means progress. You can't turn the hands of the clock of time backward. Centralization results in many advantages, the two most conspicuous of which are, first, an avoidance of duplication of effort, and, second, the delegation of duties to the one man or group of men best fitted to assume them, the specialists in that line."

A Problem in Organization

"Man rather than merchandise is the chief problem of the chain-store owner," said one, recently. "Every time you open a new store you've increased your risk in this connection just so much.

"Here is the way I've met the problem. Each store manager in my chain owns a third of the stock of that particular store. This supplies the incentive for faithful, honest work. As he saves from his earnings, he may, if he wishes, invest in another store in partnership with the manager.

"Thus many of my managers are interested not only in the success of their own store, but also in that of many of the chain. So far this plan has worked successfully. It explains, in part, why our cost of doing business is but ten per cent., a low record for this line."

The Work of the United States Bureau of Standards

The value to the community of the United States Bureau of Standards is inestimable. Through its activities, methods of scientific exactitude are fast being substituted in many industries for old-fashioned rule-of-thumb tactics.

Recently several dental experts spent two days at the bureau to obtain assistance in devising a method of measuring the gradual changes in volume that take place during the setting of amalgams and cements used in filling teeth. The measurements sought were required in order to produce alloys and cements that would neither expand and produce pain from pressure in the cavity nor contract and admit bacteria. The measuring apparatus that had answered the requirements of five or ten years ago was not sensitive or reliable enough for the high-grade alloys now produced. Before the visitors left the bureau a simple device was constructed and given a preliminary test which indicated a thoroughly satisfactory solution.

That the bureau would ever figure as a board of arbitration, thus saving disputants thousands of dollars in legal expense and experts' fees, was never anticipated.

Only the other day, however, it served in just this capacity. A manufacturer of cement-bags delivered a heavy shipment of his product to a large cement company. A controversy arose between the two parties as to the method of testing the bags to ascertain whether or not they met the specifications. All the

elements were present for an expensive lawsuit which would have cost the litigants as much as the value of the goods involved.

Happily it occurred to the purchaser to refer the question at issue to the Bureau of Standards. A series of tests was made which resulted in the conclusion that the bags measured up to standard, and the necessity of appealing to the courts was thus avoided.

Among the recent visitors to the bureau's textile section were a silk manufacturer who discussed methods of analyzing and testing silk; a bag manufacturer who discussed methods of testing various fabrics; the president of a knitting company which manufactures underwear and hosiery; the secretary of the Silk Association of America; and a member of a Western knitting company operating the largest underwear-knitting factory in the world.

Here are a few examples of the bureau's recent activities: Scale manufacturers were given an improved form of sliding poise. Rail specifications were furnished to the government of Australia. Measurements were made of surface temperatures around moving-picture machines. Problems connected with the design of a liquid-air plant were taken up. Among other subjects were: Spray method of metal-coating; improvement of brass castings; action of heat and acids on alloys; testing of refrigerators; testing of lubricating oils; thermostat to deliver water at a constant temperature; elastic properties of steel at high temperatures; relative merits of cast iron, wrought iron, and wrought steel for casing purposes for large

and deep wells; substitute for aluminum; testing of glass; determination of kiln temperatures; and manufacture and application of lime products.

Why a Shorter Work-day Increases Production

"What a commentary on the intelligence of the community!" exclaimed a merchant, as he scanned the head-lines of the paper. "Strikes declared on all sides, and more to come. And the cost of every strike is finally met by each one of us in the shape of higher living costs. 'It's a mad world, my masters!' Each man for himself and the devil take the hindmost.

"There is a peculiar feature about the shorter work-day which has but recently been discovered. Scientific tests have established the fact that, in many lines of manual labor, a man will really accomplish more in eight hours than in nine or ten. This is not due to any sentiment of gratitude for the reduction in hours; the man consciously exerts no more effort in an eight-hour work-day than in a nine or ten. But, because the toxin of fatigue has less opportunity to poison and exhaust the system, his efficiency is heightened and his production increased.

"In a Belgian plant, the hours of the piece-workers were reduced from twelve to seven and a half. The men resented the cut because they expected it to lower their earnings. Within a short time their pay-envelopes contained more money than under the old régime. This surprised the men, but not the management, which had taken the step with just this object in view.

"An English manufacturing plant, located at Manchester, tried the experiment of cutting their work-week from fifty-three to forty-eight hours. The result was an increase in the per-capita production.

"These are but two of many similar instances. Thus we find that although labor demands the eight-hour day because it wants more time for rest and recreation, the fact of the matter is that, in many cases, it is to capital's interest to grant it.

"Can't you see a grotesque element of humor in that situation? A strike is called for shorter hours; the employer says that he can't afford to grant the demand, and thereupon hires a band of assassins and plug-uglies to break the strike. Riot and anarchy prevail; production ceases; the militia is called out; and you and I complain of the increased cost of living. And if both parties to the controversy but realized it, the men are trying to force the management to make more money. If you doubt this, read Miss Josephine Goldmark's book, *Fatigue and Efficiency*, issued by the Russell Sage Foundation of New York. You'll begin to realize that many apparently conflicting interests are really not so at all; that, as Henry Ford says, the squarer deal you give your men the bigger your bank balance becomes."

THE END

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